

Isaac K. Gang, PhD

ASSISTANT PROFESSOR & OUTREACH COORDINATOR
DEPARTMENT OF COMPUTER SCIENCE & INFORMATIONS SYSTEMS
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Biography in Brief

Dr. Isaac Gang is currently an Assistant Professor of Computer Science & Outreach Coordinator at Texas A&M University-Commerce's College of Science & Engineering, department of Computer Science. He joined A&M-Commerce faculty in the fall of 2017 from the University of Mary Hardin-Baylor where he taught Computer Science & Engineering for 6 years. Before coming to UMHB, Gang was an Adjunct Professor of computer science at the University of Southern Mississippi's School of Computing. His current primary teaching responsibilities at A&M-Commerce include Algorithms Design, Advance Computer Games Programming, and Introduction to Database. He is the Department of Computer Science's Outreach Coordinator, as well as the Coordinator of the BS in Information Systems Program.

Dr. Gang earned an Associate of Arts degree in computer science from Hinds Community College in 2000, Bachelor of Science degree in computer science from the University of Southern Mississippi in 2004, Master of Science degree in computer science from the University of Southern Mississippi in 2008, and Doctor of Philosophy in computational science from the University of Southern Mississippi in 2010.

His primary research agenda involves Cyber Security (Ransomware & Steganography), Big Data/Analytics, and Image Processing.

Research/Research Interest

The following are my areas of research interest

Conducted, presented and published research work in the areas of Genetic Algorithms, Mobile Agents, and Distributed databases. My current areas of research focus are

- Image/Signal Processing
- Big Data/Analytics
- Cyber/Information Systems Security
- Computer Science Education

Key Highlights

- o DOE Grants Recipient, reliable contacts with DOE and NSF, among others
- Director of CS For All, Online Teaching & Content Development, Student Supervision and Mentoring
- Former President and Board Member of Association of Computer Educators in Texas (ACET)
- o Prior Learning Assessment (PLA) Program Guide/Lead
- Industry Advisory Board (IAB) Coordinator



Computational Science, Philosophy Doctorate (PhD) ------2010 The University of Southern Mississippi, Hattiesburg, Mississippi

Thesis: BEMDEC: An Adaptive and Robust Methodology for Digital Image Feature Extraction

Workload involved theoretical and practical studies of the required courses. Specific courses included advanced Database, Artificial Intelligence (AI), Data Handling Techniques, Parallel Computing, Advanced Algorithm, and Advanced Architecture, among others; extensive Research in the related areas, teaching, and guest lecturing. **GPA 4.0/4.0**

Computer Science, Master of Science (MS) ------ March 2005 – May 2008 The University of Southern Mississippi, Hattiesburg, Mississippi

Work involved theoretical and practical studies of the required coursework.

Computer Science, Bachelor of Science (BS) ------ August 2000 – December 2004

The University of Southern Mississippi, Hattiesburg, Mississippi

Work involved theoretical and practical studies of the required coursework. Coursework included C++, Artificial Intelligence (AI), Java, Operating System, Language Theory, and .Net Programming, among others.

Computer Science, Associate of Arts (AA) ------ August 1998 – May 2000 Hinds Community College, Raymond, Mississippi

Work involved taking basic courses of the required coursework.

Funded & Proposed Grants

- May 30, 2014 May 31, 2015, "An Intelligent and Autonomous Desktop Organizer Software -ADOS," UMHB, \$8,480.00; PI
- Nov 30, 2017 August 5, 2018, "We Teach-CS Collaborative Teachers Development Grant (TAMUC)," DOE/UTA Pass through grant, \$98,877.00; PI
- Sep 28, 2018 (submitted) "Governor's Summer Merit Program Grant (TAMUC)," Texas Workforce Commission, \$99,682.21; CO-PI
- May 9, 2019 (Submitted) "Improving Undergraduate STEM Education: Computing in Undergraduate Education (IUSE: CUE) Grant (TAMUC))," **National Science Foundation**, \$350,000.00; PI
- FY2017-2018. Faculty Start-Up Funds, Texas A&M University -Commerce, \$4,290.00; Gang

Teaching Interest

The following are my areas of teaching interest

- Algorithms & Data Structures
- Robotics
- Database Management Systems
- Information Systems/Cyber Security
- Big Data/Analytics
- Web Programming
- Programming Language of Instruction
- Programming Languages
- Language Theory
- Image Processing
- Artificial Intelligence (AI)
- Introductory/Advanced Algorithms
- NET Programming
- Scripting Languages
- o HTML/XML
- o Games Programming
- Data Mining
- Networking

Experience

Teaching

Assistant Professor ------ 2017-Present Texas A&M University-Commerce, Dept. of Computer Science & Information Systems Commerce, Texas

Duties include teaching graduate and undergraduate courses, conducting research, and providing services to the department and university as needed. Current courses include:

Graduate:

- Algorithm Design (CSCI 532 01E)
- Database Systems (CSCI 526 01E)

Undergraduate:

- Advance Computer Games Programming (CSCI 497 01E)
- Introduction to Game Design (CSCI 376)

- Introduction to Database (CSCI 340 7RB)
- o Introduction to Database (CSCI 340 0SB)
- Programming Fundamentals II (with C++) (COSC1337)
- Introduction to Computing (COSC1301)

Assistant Professor ------ 2011-2017 University of Mary Hardin-Baylor, Dept. of Computer Science & Engineering, Belton, Texas

Duties include teaching 12 hours (four courses) and providing services to the department and university as needed. Courses taught include:

Graduate:

- Information Systems Security (BCIS6370)
- Systems Development & Implementation (BCIS6395)

Undergraduate:

- Introduction to Computer Science (CISC2305)
- Structured Programming Fundamentals (CISC2330)
- Object-Oriented Programming (CISC3321)
- Systems Programming Robotics (CISC3361)
- Algorithms & Data Structures (CISC 4305)
- Games Programming (CISC 4345)
- Game Production Development (CISC4348)
- Graphics Programming (CISC4345)

Adjunct Faculty & Content Expert ------2017-Present Colorado State University-Global Campus (Online), Greenwood Village, CO

Duties include developing and teaching online courses respectively.

Courses Developed:

- Data Structures & Algorithms (CSC400)
- Graphics & Visualization (CSC405)
- Computer Vision (CSC415)
- Introduction to Information Retrieval (CSC435)
- Programming III with Java (CSC450)
- Advanced Applications of Information Retrieval & Web Searching (CSC460)
- Cyber Security Defense & Countermeasures (ISM531)
- Introduction to Programming using JavaScript (ITS340)
- Introduction to Cyber Security & Digital Crime (ITS360)
- Digital Forensic & Investigation (ITS 455)

Courses Taught:

Graduate:

- Information Systems & Security (ISM550)
- Foundations of Data Analytics (MIS500)
- Data Mining & Visualization (MIS510)
- Business Analytics (MIS542)
- Enterprise Performance Management (MIS543)
- Business Continuity & Disaster Recovery (ISM561)

Undergraduate:

- Introduction to Algorithms (CSC210)
- Logic & Design (CSC205)
- o Programming I with Java (CSC320)
- Data Structures & Algorithms (CSC400)
- Basic Programming with Python (ITS320)

Adjunct Faculty ----- 2010 – 2011 The University of Southern Mississippi, School of Computing, Hattiesburg, Mississippi

Duties include teaching 12 hours (four courses) and providing services to the department and university as needed. Two of the courses were 100 and 300 levels respectively.

- o Introduction to Computing (CSC 100 Redesign) Spring 2010 (4 sections)
- Introduction to Computing (CSC 100 Labs Redesign) Spring 2010
- Visual Basic Programming (CSS331) Summer 2010
- FORTRAN Programming (CSS240) Spring 2011

Director, Skill Transfer Program (STP) Research Project Summer ------ 2006 Academy for Educational Development (AED), Washington, DC

Designed and directed an introductory training course, known as Computer Literacy Accelerated Training (CLET) under the DSTP program funded by the United States Agency for International Development (USAID)

Graduate Assistant (Instructor) ------ 2008 – 2010 The University of Southern Mississippi, School of Computing, Hattiesburg, Mississippi

Taught various courses within the department

- Introduction to Programming (CSC 101L) Spring 2008
- o Introduction to Computing (CSC 100) Spring 2008



- Object Oriented Programming (CSC 317) Fall 2008
- Introduction to Computing (CSC 100) Fall 2008
- Introduction to Computing (CSC 100 Redesign) Spring 2009
- o Introduction to Programming (CSC 101L) Spring 2009
- Introduction to Computing (CSC 100 Redesign) Fall 2009 (4 sections)

Teaching Assistant ----- 2005 – 2008

The University of Southern Mississippi, School of Computing, Hattiesburg, Mississippi

Covered for the Professors in their absence, grade papers, exams, and quizzes for several classes (Algorithms, Database, C++ Programming II, and Artificial Intelligence). Help students with questions and other assignments related issues. Make assignments.

Guest Lecturer ------2005-2008

The University of Southern Mississippi, School of Computing, Hattiesburg, Mississippi

Lectured in the following courses either by invitation or filling in for a Professor

- Internet Programming (CSS 405) Fall 2007
- Advanced Distributed Database (CSC 733) Spring 2007
- Analytical Models (CSC 623) Spring 2008
- o Introduction to Algorithm (CSC 513) Spring 2008
- Artificial Intelligence (CSC 632) Fall 2005
- Expert Systems (CSC 645) Spring 2006
- Parallel Computing (CSC 730) Fall 2006
- Computer Architecture (CSC 726) Spring 2007

Others

Intramural Sports Official ------ 2003 – 2004

The University of Southern Mississippi, Recreational Sports, Hattiesburg, Mississippi

Officiated various sporting events (Basketball, Soccer, Baseball, Flag Football, etc.) during the intramural season

Refugees Youth Supervisor/Mentor -----2000 – 2005 Catholic Charities, Inc., Jackson, Mississippi

Supervised and mentored youth from various countries (Sudan, Haiti, and Cuba). Responsibilities included explaining the American culture to them, importance of going



and staying in school, help with homework, taking them places and contacting their teachers to check on their progress

Sales Representative ------1998 – 2000 Vector Marketing, Pearl, Mississippi

Called customers and introduced the company products. Visited customers' homes and finalized sales. Managed group of Sales Representatives and helped trained new hires.

Technical Skills/Summary

Software	Languages	Database	OSs	Applications	Code Tools
Adobe	HTML/XHTML	IBM DB2	Linux	MS VS .NET	GitHub
Dreamweaver	С	MySQL	UNIX	SQL Server	SVN
Photoshop	C++	Oracle	Windows	OpenOffice	HG
MS Office Suite	C#	SQL	MacOS	Vim	Code
CSS	Java	Apache/		Pico	Review
Tableau	Python	Tomcat			Issue
DOMO	R				Tracker
MATLAB 	JavaScript Perl PHP ASP .Net Visual Basic Visual Basic .NET LATEX Pascal Shell scripting JSP XML/XSL FORTRAN Lisp CLIPS Smalltalk Viva MPI OpenMP 6800 Assembly				

University Services

Texas A&M University-Commerce:

Responsibilities:

- Computer Science Department's Outreach Coordinator
- Industry Advisory Board (IAB) Coordinator
- Program Coordinator BS in Information Systems
- Computer Science & Information Systems Undergraduate Curriculum committee Member
- Computer Science & Information Systems Graduate Curriculum committee Member
- Undergraduate Advisor

Services:

1. Departmental service trip to Letourneau University

- 9/14/2017: Attended Letourneau University Science Seminar –
 https://www.youtube.com/watch?v=Ka5GHxu8geY&feature=youtu.be
 - Spoke on graduate research at A&M-Commerce
 - Spoke about some of the core graduate courses (Algorithm Design, Games Programming, etc.,) at A&M-Commerce
 - Spoke on my main research areas (Cyber Security & Big Data)

2. Program and Curriculum reviews

- 9/21/2017: Reviewed the Computer Science & Information Systems undergraduate curriculum and personally responsible for the following changes and recommendations:
 - Designing/redesigning of a new Introduction to Game Design & Development course
 - Removal of redundant prerequisites and "Instructor Consent" (to override prerequisites) provisions
- o **9/21/2017:** Reviewed the Computer Science & Information Systems Graduate curriculum and personally responsible for the following changes and recommendations:
 - Designing/redesigning of a new Cyber-Physical Systems (CPS) course
 - Creation/recreation of a new Algorithm Design course description



- Creation/recreation of a new Track
- Renaming of the Computer Science Graduate track from "Information Security" to "Cyber Security"
- Researching (with another colleague) a new "Computational Engineering" track for possible addition to our Computational Science Graduate tracks

3. University Forum

o 9/20/2017: Attended and contributed to the University's DACA forum

4. Transfer Students Department Faculty Representative

 Summer/2018: Attended the orientation on behalf of the department and assist with students registration

5. Transfer Students Department Faculty Representative

 Fall/2018: Attended the orientation on behalf of the department and assist with students registration

6. Department of Computer Science & Information Systems Faculty Fall Commencement Representative

- o Fall/2018: Attended the commencement on behalf of the department
- 7. Department of Computer Science & Information Systems Alumni Ambassador Faculty Host.
 - o March 1, 2018: Hosted the department's 2018 Alumni Ambassador, Mr. Keith Wooten
- 8. Department of Computer Science & Information Systems Alumni Ambassador Faculty Host.
 - February 21, 2019: Hosted the department's 2019 Alumni Ambassador, Mrs. Iris
 Thompson
- 9. Faculty Panelist at the NAACP Student Chapter Forum.
 - February 11, 2019: Attended the NAACP Student Chapter Forum where I addressed career and other student questions alongside other two faculty panelists

- 10. Department of Computer Science & Information Systems Faculty Representative at the College of Science & Engineering (COSE)'s Promotion Night.
 - February 26, 2019: Conducted an open discussion with Freshmen, Sophomores, and Junior transfers wanting to know more about the department, careers, and the university at large where I answered their questions with two other colleagues
- 11. Department of Computer Science & Information Systems Faculty Mane Event Representative for the third time.
 - March 2, 2019: Made a presentation about the department and the state of Computer Science to incoming and prospective students.
- 12. Department of Computer Science & Information Systems Faculty Representative and Panelist at Collin College's Recruitment visit.
 - May, 2018: Made a presentation about the department and the state of Computer Science and career to incoming and prospective students.
- 13. Department of Computer Science & Information Systems Faculty Mentor, Quality Enhancement Plan (QEP)
 - FY2018, FY2019: Point of Contact for faculty/staff in CSCI department, as well as students, about the importance of and resources available to increase our students' global competence.
- 14. Standing Committee Member, Quality Enhancement Plan (QEP)

FY2018, FY2019: Contribute to university quality enhancement, collect student data, and support students and faculty through awards and other relevant activities. Time commitment, in addition to these responsibilities, is 3 meetings a year.

15. Member, Texas Association of Black Personnel in Higher Education (TABPHE)

FY2017 - Present: Contribute to examining and understanding university faculty issues, quality enhancement, and diversity and inclusion (D&I).

16. Department of Computer Science & Information Systems Faculty Mentor for Leaving Your Legacy Initiative.

August 27, 2019: Made a presentation about the department and advised students on potential careers and Computer Science and/or STEM.

17. Student Organizations Faculty Advisor

- Computer Science Student Organization (A&M-Commerce)
- The Mile Club (UMHB)

University of Mary Hardin-Baylor (UMHB):

- Faculty Consultant Science Education Research Center (SERC)
 2012 2017
- Computer Science & Engineering Dept. Programming Teams Consultant/Coach
- Member of the Diversity Committee
- Member of Educational Technology Committee

Colorado State University Global Campus (CSU-Global):

- Prior Learning Assessment (PLA) Program (BSIT) Guide
- Context Expert

University of Southern Mississippi

- Judge: Judged the Regional Science and Engineering Fair competition (2005)
- Faculty Position Candidate Tour Guide

Took the candidates around to various departments within the university (2006)

- High School Students Tour Guide:

Took the visiting students around to various places on campus (2007)

- Intramural Sports Referee:

Officiated various sports games during Intramural Sports Season (2007-2010)

Community:

- Member of Rockwall Catholic Church
- Active in the community and advocacy

In the News:

- "Computer Science Team Awarded" The Bell Student Newspaper, November 16, 2012. Belton, Texas.
 http://thebells.umhb.edu/2012/11/page/4/
- "A&M-Commerce Computer Science Professor Awarded Grant for STEM Professional Development Initiative" – TAMUC Online Newspaper, February 23, 2018. Commerce, Texas.
 https://news.tamuc.edu/am-commerce-computer-science-professor-awarded-grant-for-stem-professional-development-initiative/

<u>Professional Affiliation/Participation/Services:</u>

- President of ACET (2015-2016) https://acet.ecs.baylor.edu/
- Member of ACM
- Member of IEEE
- Attended Grant Training Workshop at the UT-Tyler sponsored by the Office of Sponsored Programs (October 25, 2018 Tyler, TX)
- Attended We Teach-CS Summit hosted by UT-Austin (June 18- 20, Georgetown, TX)

Students Supervision/Mentoring

- 1. Trenton Brock (Texas A&M University-Commerce), Honor Thesis in Gaming (2018-2020)
- 2. Kelsey Archer (Texas A&M University-Commerce), Independent Study: Game Design (Spring 2019)
- 3. Andrew Christian (University of Mary Hardin-Baylor), Independent Study: OOP (Fall 2011)
- 4. Alicia Hastings (University of Mary Hardin-Baylor), Independent Study: OOP (Fall 2011)
- 5. Brandon Heller (University of Mary Hardin-Baylor), Independent Study: OOP (Fall 2012)
- 6. Philip Horwitch (University of Mary Hardin-Baylor), Independent Study: OOP (Fall 2012)
- 7. Zachary Winfield (University of Mary Hardin-Baylor), Independent Study: OOP (Fall 2012)
- 8. **Sainath Bandi** (University of Mary Hardin-Baylor), **Master of Science Thesis**: *Airplane Database Reservation System* (2015)
- 9. Rabi Chandra Chunduri (University of Mary Hardin-Baylor), Master of Science Thesis: Online Shopping (2015)
- 10. **Varun Kumar Kanala** (University of Mary Hardin-Baylor), **Master of Science Thesis**: *Payroll Management System* (2015)
- 11. Rahul Bharadwaj Kotla (University of Mary Hardin-Baylor), Master of Science Thesis: Talent4U (2015)
- 12. **Siddardha Nalluri** (University of Mary Hardin-Baylor), **Master of Science Thesis**: *Restaurant Ordering System* (2015)

- 13. **Keerthi Kumar Ramishetti** (University of Mary Hardin-Baylor), **Master of Science Thesis**: *Text Editor Tool* (2015)
- 14. Sushma Yelaverthi (University of Mary Hardin-Baylor), Master of Science Thesis: Bluetooth Chat (2015)

Faculty Mentoring

Srujan Kotikela, PhD: Assistant Professor - Texas A&M University-Commerce/RELLIS

Conference Presentations & Invited Talks:

1. Invited Talk – Texas A&M University-Commerce Professional Development Workshop

Title of the Presentation – "Two-Factor Authentication: Understanding Secure Password Etiquette for Positive Online Experience" (September 30, 2019, Commerce, Texas).

2. Presentation – IEMS 2008

Title of the Presentation – "NERD-DB: National Emergency Relief Distributed Database for Disaster Victims" 2007 International Conference on Industry, Engineering, and Management Systems, Cocoa Beach, FL. (Tuesday March 11, 2008, Cocoa Beach, Florida).

3. Presentation - IEMS 2009

Title of the Presentation – "Mobile Agent Paradigm: Is It the Solution" 2009 International Conference on Industry, Engineering, and Management Systems, Cocoa Beach, FL. (Wednesday March 11, 2009, Cocoa Beach, Florida).

4. Presentation – IEMS 2012

Title of the Presentation – "Robust Feature Detection Methodology Using Bidimensional Empirical Mode Decomposition (BEMD)" 2012 International Conference on Industry, Engineering, and Management Systems, Cocoa Beach, FL. (Tuesday March 27, 2012, Cocoa Beach, Florida).

5. Presentation – IEMS 2013

Title of the Presentation – "Revolutionary Image Detection Techniques Using Bidimensional Empirical Mode Decomposition (BEMD)" 2013 International Conference on Industry, Engineering, and Management Systems, Cocoa Beach, FL. (Wednesday March 27, 2013, Cocoa Beach, Florida).

6. Presentation – IEMS 2014

Title of the Presentation – "Ballistical" – A 2D Target Practice Simulator" 2014 International Conference on Industry, Engineering, and Management Systems, Cocoa Beach, FL. (Wednesday March 13, 2014, Cocoa Beach, Florida) (Alvesteffer & Gang).

7. Presentation – IEMS 2014

Title of the Presentation – "Hostage Rescue Mission – A Multiplayer Gamemode for ArmA3" 2014 International Conference on Industry, Engineering, and Management Systems, Cocoa Beach, FL. (Wednesday March 13, 2014, Cocoa Beach, Florida) (Alvesteffer and Gang).

8. Presentation – IEMS 2014

Title of the Presentation – "Real Time Employee Skills Tracking System" 2014 International Conference on Industry, Engineering, and Management Systems, Cocoa Beach, FL. (Wednesday March 13, 2014, Cocoa Beach, Florida) (Liberty & Gang).

9. Research Discussion - Millsaps College

Title of the Presentation – "BEMDEC: An Adaptive and Robust Methodology for Digital Image Feature Extraction" (Tuesday March 29, 2011, Jackson, Mississippi).

10. Research Discussion - University of Mary Hardin-Baylor

Title of the Presentation – "Robust Feature Detection Methodology Using Bidimensional Empirical Mode Decomposition (BEMD)" (Monday May 9, 2011, Belton, Texas).

11. Invited Talk – University of North Texas at Dallas

Title of the Presentation – "Effective Sorting & Searching: A classroom Guide" (Friday June 10, 2016, Dallas, Texas).

12. Research Discussion – Belmont University

Title of the Presentation – "Plain Sight Cybersecurity Measures Using Steganography" (Monday December 12, 2016, Nashville, Tennessee).

13. Invited Talk - University of Virginia

Title of the Presentation – "The Role of Dijkstra and Steganographic Algorithms in Computer Science" (Friday March 17, 2017, Charlottesville, Virginia).

14. Invited Talk - Bridgewater College

Title of the Presentation – "Inheritance & Interfaces" (Wednesday February 15, 2017, Bridgewater, Virginia).

15. Invited Talk – Carson-Newman University

Title of the Presentation – "Operating Systems: Protect & Security" (Wednesday March 29, 2017, Jefferson City, Tennessee).

16. Research Discussion – George Washington University

Title of the Presentation – "The Role of Dijkstra and Steganographic Algorithms in Computer Science" (Monday April 10, 2017, Washington, DC).

17. Research Discussion - Texas A&M University-Commerce

Title of the Presentation – "Plain Sight Cybersecurity Measures Using Steganography" (Monday April 3, 2017, Commerce, Texas).

- **18.** Invited Talk Le Tourneau University Chemistry & Computer Science Seminar Part 1 Title of the Presentation "Enabling Technologies for Computational Science." Co-presented with Drs. Suh, Lee, and Sirakov (September 14, 2017. Longview, Texas).
- 19. Invited Talk The 53rd Conference of ACET (October 20, 2017)

 Title of the Presentation "Innovative Techniques for Securing Big Data Using Mobile Agents" (St. Mary University, San Antonio, Texas):

 http://acet.ecs.baylor.edu/2017Conference/ConferenceBooklet.pdf
- **20.** Invited Talk Texas A&M University-Commerce's Mane Event
 Title of the Presentation "Department of Computer Science &
 Information Systems Informational" (Commerce, Texas, October 21, 2017).

21. Invited Talk - STEAM Teachers Workshop

Title of the Presentation – "Starting Out With Computer Science: Code Now, Succeed Late" (Mesquite, Texas, October 28, 2017).

22. Invited Talk - College of Sciences Brown Bag Talk: UMHB

Title of the presentation – "Robust Feature Detection Methodology Using Bidimensional Empirical Mode Decomposition (BEMD)" (November 1, 2011 Belton, Texas).

23. Invited Talk – The 51st Conference of ACET (2015)

Title of the Talk – "The Future of Computing in Texas and the Role of ACET" (October 30, 2015, Belton, Texas).

24. Invited Talk – The 52nd Conference of ACET (2016)

Title of the Talk – "State of ACET – Challenges and Opportunities in Developing the Next Generation of IT Leaders" (October 29, 2016. Lamar University, Beaumont, Texas).

25. Invited Talk – Texas A&M University-Commerce's Mane Event

Title of the Presentation – "Future of Computer & Computational Science" (Isaac Gang and Daniel Creider) (Commerce, Texas, October 20, 2018).

26. Invited Talk – Ignite Conference

Title of the Presentation – "Computational Thinking: Interdisciplinary Curricular Applications" (June 11, 2018, Irving, Texas) (Isaac Gang and Joyce Miller).

27. Invited Talk – Texas A&M University-Commerce (Mesquite) Professional Development Workshop

Title of the Presentation – "Computational Thinking" (July 27, 2018, Mesquite, Texas) (Isaac Gang and Joyce Miller).

28. Invited Talk - Texas ASCD Annual Conference

Title of the Presentation – "Computational Thinking With Every Student, in Every Subject at Every Grade Level" (October 22, 2018, Horseshoe Bay, Texas) (Isaac Gang and Joyce Miller).

29. Invited Talk - NAGC 2018 Conference

Title of the Presentation – "Computational Thinking with Application to the Gifted and Talented Education Classroom" (November 15, 2018, Minneapolis, MN) (Isaac Gang and Joyce Miller).

30. Invited Talk - TAGT Conference

Title of the Presentation – "Computational Thinking with Application to the Gifted and Talented Education Classroom" (November 29, 2018, Fort Worth, Texas) (Isaac Gang and Joyce Miller).

Publications, Activities, and Awards



- Dean's List, The University of Southern Mississippi, (Spring 2004)
- President's List, The University of Southern Mississippi, (2008-2010)
- Athletic (Track & Field) Scholarship recipient, The University of Southern Mississippi (2000-2002)

Memberships

- Association for Computer Educators in Texas (ACET), 2011 Present
- Association for Computing Machinery (ACM), 2005 Present
- Institute of Electrical and Electronics Engineers (IEEE), 2005 Present
- National Honor Society (High School), 1995 1998
- Student Alumni Association (2001 2002)
- Alumni Association, 2009 Present
- Track & Field Letterman (2000 2002)

Journal Publications and Manuscripts

- I. Gang and D. Ali. Revolutionary Image Analysis Techniques Using Bidemensional Mode Decomposition (BEMD) *The Journal of Management and Engineering Integration*, 2013, 6(1), 71.
- M. Liberty, C. Covington, K. Smith, and I. Gang. Real Time Employee Skills Tracking System. Government Accountability & Transparency Mobile Readiness, 6(1), 79.
- I. Gang, A. Spurgeon, D. Ali, K. Roper and S. Nanda. NERD-DB: National Emergency Relief Distributed Database for Disaster Victims. *The Journal of Management and Engineering Integration, 2008.*
- I. Gang, D. Dobson, J. Gourd, and D. Ali. Parallel Implementation and Analysis of Mandelbrot Set Construction. *The Journal of Management and Engineering Integration*, 2008.
- I. Gang and D. Ali. Mobile Agent Paradigm: Is it the Solution? *The Journal of Management and And Engineering Integration, 2009.*
- H. Choi and I. Gang. Smart DNA Chips and its Potential Impact on Health Care. ACET Journal of Computer Science & Research (Submitted).
- I. Gang and H. Bandi. Methodical Survey and Application of Ransomware Algorithms (in progress)

- I. Gang and H. Bandi. Detecting Cyber Bullying Using Non-Toxic Text Classification with Machine Learning (in progress)
- I. Gang, O. El Ariss, J. Tanik, and J. Miller. Reducing Programming Anxiety through Hybrid Computational Thinking Lesson Plans (in progress)
- S. Datta, and I. Gang. Robust Cardiovascular Disease Analysis and Prediction using R (in progress)
- S. Stearns, and I. Gang. Real Time Employees Overtime Predictor Model (in progress)

Refereed

- I. Gang, A. Spurgeon, D. Ali, K. Roper and S. Nanda. NERD-DB: National Emergency Relief Distributed Database for Disaster Victims. *In Proceedings of the 2007 International Conference on Industry, Engineering, and Management Systems,* Cocoa Beach, FL.
- I. Gang, D. Dobson, J. Gourd, and D. Ali. Parallel Implementation and Analysis of Mandelbrot Set Construction. *In Proceedings of the 2007 International Conference on Industry, Engineering, and Management Systems,* Cocoa Beach, FL.
- I. Gang and D. Ali. Mobile Agent Paradigm: Is it the Solution? *In Proceedings of the 2009 International Conference on Industry, Engineering, and Management Systems,* Cocoa Beach, FL.
- I. Gang and D. Ali. Nature Inspired Approach to Fault Tolerance. *In Proceedings of the 2009 International Conference on Industry, Engineering, and Management Systems,* Cocoa Beach, FL. Abstract accepted.
- I. Gang and D. Ali. BEMD-Based Image Processing: A novel Approach to Color Image Edge Detection and Analysis Using Bicubic Interpolation. *In Proceedings of the 2010 International Conference on Industry, Engineering, and Management Systems,* Cocoa Beach, FL.
- I. Gang and G. Alvesteffer. Balistical: A 2D Target Practice Simulator. *In Proceedings of the 2014 International Conference on Industry, Engineering, and Management Systems,* Cocoa Beach, FL.
- I. Gang, G. Alvesteffer and S. Rinehart. Hostages Rescue Mission A Multiplayer Gamemode for ArmA3. *In Proceedings of the 2014 International Conference on Industry, Engineering, and Management Systems,* Cocoa Beach, FL.

- I. Gang, M. Liberty, C. Covington, and K. Smith. Real Time Employee Skills Tracking System. *In Proceedings of the 2010 International Conference on Industry, Engineering, and Management Systems,* Cocoa Beach, FL.
- I. Gang, and G. Alvesteffer. ADOS: An Intelligent and Autonomous Desktop Organizer Software For Faculty. *In Proceedings of the 2016 Conference of the Association of Computer Educators in Texas (ACET),* Beaumont, TX.

Patents

Nuer++: Nuer Language and Indigenous Dialects API for IPhone and Android Devices (2011) (Patent Number Pending)

The Right Way Series - Programming Languages Textbooks Development Initiative for the Millennials (Patent Number Pending)

Miscellaneous

Citizenship – United States

Other Language Spoken - Nuer/Naath/Naadh, Limited Spanish & Arabic

Sample Student Comments/Emails/Data

<u>Undergraduate Data:</u>

Texas A&M University-Commerce

- 1. CSCI340 Introduction to Database (Spring 2019): "This class was great. Dr. Gang is a very nice and helpful professor. The PowerPoints are interesting and the assignments are understandable/doable. I would certainly recommend this course to a friend and look forward to future courses with Dr. Gang!"
- 2. CSCI340 Introduction to Database (Spring 2019): "Professor Gang is a great teacher. He understands the coursework and makes sure we grasp knowledge of the concept as well. I wish the quizzes were more structured rather than at his discretion, however it encourages you to go to class everyday so you won't miss it. Moreover, now that the final project is approaching, he should give us examples of what he wants to give us an idea of how to create our presentation in full expectancy of an A."

- **3. CSCI340 Introduction to Database (Spring 2019):** "i am very fortunate to take this course because i found the interest in this course. professor is very helpful. i would definitely recommend other students to take this course."
- **4. CSCI340 Introduction to Database (Spring 2019):** "I really enjoyed this class and this professor. My only comment would be that some of the material was covered extremely fast before the midterm, but was still equally important on the midterm. As a student, typically if a topic is covered very extensively then I expect it to hold more importance and be more prominent on the test. On the other hand, if a topic is brushed over very quickly I don't expect it to be so prominent."
- **5. COSC1337 Programming Fundamentals II (Spring 2019):** "The class is good and I would recommend to others. The instructor is pretty good at explaining things and will give you extra help if you need it."
- **6. COSC1337 Programming Fundamentals II (Spring 2019):** "Dr Gang is a great prof and I had a fun time learning in his class."
- 7. COSC1337 Programming Fundamentals II (Spring 2019): "Sometimes I feel that the book required for the class is too large and intimidating. Also, I like the new system that we just started implementing where we have a practice quiz on Mondays and a real quiz on Wednesdays because it gives us a chance to test our knowledge without fear of failing. Also, sometimes I feel like Dr. Gang expects us to know more about computer science than we do, which I understand is probably due to his optimism and his desire for us to challenge ourselves, but I feel like it ultimately causes more harm than good because he is not on the same page as we are."
- **8.** COSC1337 Programming Fundamentals II (Spring 2019): "This course has made me more excited about programming. Dr. Gang is very funny, and very good at teaching. I've learned a great deal about Computer Science due to his excellent teaching ability."
- **9. CSCI340 Introduction to Database (Summer 2019):** "I like that this Professor actually gets you involved in making a working database, which is a big deal when going into the job market."
- **10. CSCI340 Introduction to Database (Fall 2018):** "Isaac Gang is a wonderful professor. He made sure everyone was up to speed and on the same page before moving on in the course material. With the small class size, he turned the classroom into a positive learning environment that made everyone comfortable and eager to learn and ask questions."
- 11. CSCI376 Game Design (Fall 2018): "I personally enjoyed this course. The professor seemed to have the right idea of what the course was trying to teach, but the in-class examples dragged on. I would recommend that the examples (which were available on the Unity website), be used as the homework, instead of what was assigned (modified versions of the examples) because this would allow the students to have a resource to refer to and watch step by step."

12. CSCI497- Advance Game Design (Fall 2017): "It felt like we spent too much time on the theoretical aspects of game design, and not enough time on how to actually use Unity. It would have been helpful if the classroom computers had Unity installed. Dr. Gang did a good job, but often sprung things on us or changed things at the last minute."

Course-Section Report for Isaac Gang - 40196 Introduction to Database

Comparative Analysis - Score Tables

Instructor Questions

Question	Instructor		Dept (Computer Science & Info Sys)		School (Science & Engineering)		University	
	Response Count	Mean	Response Count	Mean	Response Count	Mean	Response Count	Mean
The instructor demonstrated knowledge of course materials.	8	4.63	39	4.56	241	4.58	1201	4.57
The instructor was prepared for class.	8	4.63	39	4.56	241	4.50	1199	4.45
The instructor was available outside of class.	8	4.75	39	4.41	241	4.39	1201	4.38
The instructor stimulated interest in the course.	8	4.38	39	4.31	241	4.38	1202	4.38
The instructor treated students fairly and impartially.	8	4.75	39	4.62	239	4.52	1195	4.49
The instructor set high standards that challenged me in this course.	7	4.57	38	4.39	240	4.53	1197	4.55
I was provided with timely comments, responses and positive constructive feedback.	8	5.00	39	4.51	241	4.46	1201	4.35
I would recommend this instructor to another student.	8	4.50	39	4.36	240	4.40	1199	4.33
Overall	-	4.65	-	4.47	-	4.47	-	4.44

Course Questions

Question	Instructor		Dept (Computer Science & Info Sys)		School (Science & Engineering)		University	
	Response Count	Mean	Response Count	Mean	Response Count	Mean	Response Count	Mean
The course description accurately reflected the content of the course.	8	4.50	39	4.49	230	4.52	1187	4.57
Expectations were clearly outlined in the syllabus.	8	4.63	39	4.51	230	4.55	1186	4.51
Reading assignments were of reasonable length and level.	8	4.63	39	4.64	230	4.42	1186	4.36
Exams covered important course materials and content.	8	4.63	39	4.59	230	4.50	1183	4.42
Overall, this course has stimulated my interest in this subject.	8	4.63	39	4.21	229	4.27	1182	4.28
Overall	-	4.60	-	4.49	-	4.45	-	4.43

Texas A&M University-Commerce Undergraduate Sample

University of Mary Hardin-Baylor

- 1. CISC2305 Introduction to Computer Science (Programming with Java) (Spring 2017): "Dr. Gang is an excellent Professor, and I enjoyed the class. My only concern is that class was cancelled alot during this semester, so I don't think I got to master to the greatest extent that I could have. Still learn a lot with this class."
- 2. CISC2305 Introduction to Computer Science (Programming with Java) (Spring 2017): "You did a great job teaching me the course material. I did notice that some of my other peers could not keep up.Its a new language and sometimes it is hard to understand the conventions and technicalities of it all"
- 3. CISC2305 Introduction to Computer Science (Programming with Java) (Spring 2016): "Dr. Gang clearly laid out the expectations for the course and follow his syllabus strictly. He always ensured that student questions were answered before moving on to the next topic and provided opportunities and resources for additional help if needed. He provided clear instructions leaving no room miscommuncation. If at the end of his course a student is not happy with their grade they have no one to blame but themselves."
- **4.** CISC2305 Introduction to Computer Science (Programming with Java) (Spring 2016): "I appreciate your teaching sytle and have gain an resourceful basic understanding in the discipline in Java."
- 5. CISC2330 Structure Programming Fundamentals (With Java) (Spring 2016): "This class has been very enlightening into the world of programming. I struggled through the assignments but was able to gain the knowledge to complete them. The only assignment I did not get the understanding of them is from Chapter 15. This chapter probably needs a few more examples to gain a better understanding of the material or maybe a few more days explaining the concepts in this chapter."
- **6. CISC2330 Structure Programming Fundamentals (With Java) (Spring 2016):** "The environment is very vocal; students are sharing their ideas and experiences with their assignments, especially the hard ones. This Instructor is open to understanding the students and explaining the material to them. He loves teaching us."
- 7. CISC4305 Algorithms & Data Structures (With C++) (Spring 2016): "Overall, the class was solid. With this being the last programming class, I wished the programs where more challenging and more applicable to real life."

- 8. CISC4305 Algorithms & Data Structures (With C++) (Spring 2016): "I really appreciate Dr. Gang effort in comforming to the students ability to learn. I honestly applaud his change in how he teaches and tests us. Thanks for listening! Even though the course is still hard."
- 9. CISC2305 Introduction to Computer Science (Programming with Java) (Fall 2016): "Great teacher looking forward to having him in the next course."
- **10.** CISC2305 Introduction to Computer Science (Programming with Java) (Fall 2016): "Pretty good at teaching the subject matter but it feels a bit slow but for other students it is probably a good pace. Not much really I would recommend besides having notes of what is written down on the board online."
- **11.** CISC2330 Structure Programming Fundamentals (With Java) (Fall 2016): "Great professor that cares about his student's comprehension of the course work."
- 12. CISC2330 Structure Programming Fundamentals (With Java) (Fall 2016): "Bonus to the instructor!"
- **13. CISC3321 Object-Oriented Programming (Fall 2016):** "Dr. Gang is an exceptional instructor. He would help students during his office hours by leading them in the right direction to discover and figure out the answers to their questions. He would not just give" them the answers. He is also a very nice and compassionate individual and truly cares about the success of his students."
- 14. CISC3321 Object-Oriented Programming (Fall 2016): "I think the course was good and went over important things needed for programming. I honestly feel like the lectures did nothing for me and had to learn everything required for the assignments, projects, and labs by myself. One HUGE problem would be labs, which i take are projects you are suppose to be able to do within a day learning and polishing a concept you learned in class. I feel like over half of the labs and assignments we went over in this class required us to learn all of it on our own and that not much of it was covered in class. This requires us to sometimes learn about a concept we might not of know existed or was even possible, and in the case of a lab only have 2 days to do so along with all the other homework we have to do that week. Although the projects and labs where we had some free reign to program what we wanted and the big group project got to be creative were VERY beneficial and enjoyable."
- **15. CISC4345 Games Programming I (Fall 2016):** "I enjoyed this class and geting som exposure to game programming."
- 16. CISC4345 Games Programming I (Fall 2016): "Because of thanksgiving the last two weeks are compacted, so I think that the last project on top of working on the Final project is a little too much to handle. Also the explanation for what you want in the power point presentation for the Final project was not clear. If we get points taken off of an assignment, please don't comment with just "good job" or "nice work". If you are going to comment on something less than 100% please explain with detail

why they got it wrong. If many people have the same problem then make sure to have an explanation in the assignment parameters pdf that you give us when assigning a new thing to work on. I like the way the tests were based off of the sections in the book. I honestly think that since the last section is just building prototypes, that instead of making a final over it we should have an extra week to work on the Inal project and present them on the final exam day. If you have to test if we know the course objectives, which admittedly has nothing to do with our actual knowledge over the course material itself, then don't put it on the test. That's a waste of time and points; at least make it a quiz or something. We have more important stuff to study than whether or not a course objective is important or essential; memorizing which is which just shows our level of memorization skills and not whether we can work in the Gaming industry."

- 17. CISC2305 Introduction to Computer Science (Programming with Java) (Spring 2015): "Dr. Gang is dedicated to his students learning the subject. He is well versed in all subject matters. Dr. Gang made time to help me outside of class multiple times when I had questions. The only problem I had with this class is that I am a hands on learner. There was reading in the beginning needed to really grasp concepts. Dr. Gang also seems to have trouble conveying ideas to students, sometimes his classes seem like they are taught "from the hip". He knows a lot about the subjects but the students often had questions but knew if they asked in class they would just get more confused."
- **18.** CISC2305 Introduction to Computer Science (Programming with Java) (Spring 2015): "The professor is excellent in teaching and group working."
- 19. CISC2330 Structure Programming Fundamentals (With Java) (Spring 2015): "Dr. Gang's classes are very well-planned and organized. I like that there are no real surprises in his class: project due at ten in the evening every Monday, book homework discussion every Wednesday, lab every Friday. Thorough lectures. Occasional quiz to check for understanding, and two exams in the semester (not counting the final). Paper tests tend to trip me up since I work by trial-and-error coding and usually have to write things out multiple times (and well, limited space on a piece of paper is no fun) and sometimes I'm not completely sure what exactly he's asking for. Also got points counted off for writing out a loop with the test value in place in English, even though my answer was correct (the tests are always open-answer, so it's not like I just guessed from a list of possible answers like I could on the online test). The week of the first exam in the class, I'd had to rush home and help with an impromptu move as the only person in the family who happens to own a functional vehicle that ISN'T a Fiat because we'd been evicted and my mom didn't tell me until the week the place we were renting was supposed to be demolished, soooo...I don't think I even told most of my professors since I pretty much skipped out on the whole week and well...that's a lot to catch up on. >.< That failure is not in the least bit his fault, obviously. Even with the missed classes, I feel like I grasped the material very well."
- **20.** CISC2330 Structure Programming Fundamentals (With Java) (Spring 2015): "Dr. Gang is a great prof. He takes his time to help us understand what we are doing when we are writing our programs. He is there for us when we need one–on–one help. I changed my direction of my major after I had him for the

first time, because of him. The class was very informative, and though I know that there are two other C++ classes, i would love to see this one split in two so that more time can be taken on some of these lessons. Thanks for a great semester Dr. Gang!"

- 21. CISC4305 Algorithms & Data Structures (With C++) (Spring 2015): "I enjoyed the class...it was a very difficult class to say the least, however, the experience was well worth it. Dr. Gang is a great professor. I appreciate his candid way of teaching and putting things. He is understanding but still holds us responsible for our own work. There is no getting around the difficulty of the class, however, maybe making two classes out of the one so that there is more time spent on each subject."
- 22. CISC4305 Algorithms & Data Structures (With C++) (Spring 2015): "Good class, but the homework is extremely time-consuming. My schedule is so busy I just didn't have time this semester to put in the required amount of work. The projects take a lot of time to figure out, and you have to take the time to figure things out on your own. I feel like I should have taken this class my sophomore year, not my senior year. This spring I have two other classes in addition to this one that are equally difficult and equally time-consuming. If I had taken this class two years ago, I would still have understood the material, AND would have had enough time to make a decent grade in the class. Unfortunately, the necessary pre-reqs make it very difficult to take this course any earlier than senior year. Perhaps the system of pre-reqs should be changed to allow people to take this sooner- all you need for it really is CISC 2315 and 3321."
- **23.** CISC2305 Introduction to Computer Science (Programming with Java) (Fall 2015): "Dr. Gang is an excellent professor. He is very knowledgeable in his field and encourages students to solve problems on their own, but is always accessible for when a student cannot solve the problems to give guidance and not to give the answer."
- 24. CISC2305 Introduction to Computer Science (Programming with Java) (Fall 2015): "Overall Dr. Gang is an excellent teacher he obviously knows what he's teaching but I do think one thing that wasn't the best was his time management. For the most part it feels as if the lectures in this class were way too short. This class is 50 minutes long/ three days a week, but at times Dr. Gang didn't start the lecture until 20 minutes into the class or even later. Sometimes it felt like the lecture geared off course a lot of the times sometimes due to questions from some students that didn't pertain to anything we were learning at the time and it feels as if I didn't get to learn as much as I would have liked from the teacher himself during class time. A couple of times this class even went a little bit over 50 minutes (due to a late start in the lecture) which was a bit stressful seeing as though, for me, I have a class immediately after this class across campus. Other than this one thing, I really do think Dr. Gang is an excellent teacher, I just would have liked his time management in this class to have been better. There is a lot of material in each chapter that I would have liked to have learned from Dr. Gang himself, rather than reading a lot of the information from the book and trying to apply that to the material in this class, especially if his tests only covers certain parts of what is in our books and powerpoints."

- 25. CISC2330 Structure Programming Fundamentals (With Java) (Fall 2015): "Dr. Gang berated students for missing what he deemed as simple test questions and told students they should "feel bad about themselves" for missing said questions. Dr. Gang set standards so high it was impossible for students excel—as can be noted in the consistent C average of every exam—which according to Dr. Gang was a "good class average". Dr. Gang was not at all encouraging of student's learning or academic development."
- **26.** CISC2330 Structure Programming Fundamentals (With Java) (Fall 2015): "Dr. Gang is really cool at helping me with my questions and explaining he course. I am really glad that I learned a lot from this course."
- **27. CISC3321 Object-Oriented Programming (Fall 2015):** "This is a great class. The problem that I had, is that I felt that most people did not grasp the prior classes' information and therefore hindered the flow and ability to learn in the class. I believe that it needs to be stressed at the beginning of the semester and even in the course information that this is a very basic class and outside learning and understanding is needed and even required. Even thought the Prof. did the best that he could with this large of a class, there were simply too many people that did not understand the concepts."
- 28. CISC3321 Object-Oriented Programming (Fall 2015): "The first few weeks of this course was fun and invigorating as a student, with reasonable challenges and assignments. However, as the semester progressed, the weekly assignments got more more advanced and more out of hand. Before long, I (and others in the class) were spending 5–7 hours a night for these assignments alone (this does not include time for test study or other class's homework). Other issues emerged as the semester went on, one being the fact that there was no assignments graded until after our first test, half way through the semester. Another being the limited (if any at all) presence of in class lessons pertinent to our assignments: to clarify, most of the class lectures did not address any concepts needed to complete our homework. In conclusion, this professor has overestimated our capabilities as students and overloaded us with work too advanced for our level."
- 29. CISC4347- Graphics Programming (Fall 2015): "Dr. Gang is awesome."
- **30. CISC4347- Graphics Programming (Fall 2015):** "The class is great, but there needs to be a prerec to this class that teaches JavaScript, and OpenGL more in depth. It was not clear that this was not a "coding" class and I cannot say that I walked away from this class understanding WebGL or even (really) what the class was supposed to teach us."
- **31.** CISC2305 Introduction to Computer Science (Programming with Java) (Spring 2014): "He is an excellent teacher."
- **32.** CISC2305 Introduction to Computer Science (Programming with Java) (Spring 2014): "The best way i learned in this class was what i learned out of class. The only real way to learn computer science is

- hands on, and the in class lectures did not help. He made you fully aware that you were going to have to do a lot of studying outside the classroom."
- 33. CISC2330 Structure Programming Fundamentals (With Java) (Spring 2014): "I really liked this class. I learned way more then intro to comp science. I would recommend the following changes: To include more labs and lessen the lectures. There were a few times where the lectures did not offer enough information to make the projects work. If there was more of a 30 min lecture followed by 20 min lab. I think more people includeing my self would excel. Great Teacher."
- **34. CISC2330 Structure Programming Fundamentals (With Java) (Spring 2014):** "This class was very interesting."
- **35.** CISC2305 Introduction to Computer Science (Programming with Java) (Fall 2014): "Loved the class. Loved working with Dr. Gang. HATE THE BOOK!!!!! Learned a lot from Dr. Gang. He really wanted to help us to learn and understand C# and HTML. Really enjoyed the class and Professor."
- **36.** CISC2305 Introduction to Computer Science (Programming with Java) (Fall 2014): "Dr. Gang is a great professor who makes learning new things interesting and fun."
- **37. CISC2330 Structure Programming Fundamentals (With Java) (Fall 2014):** "Would be very helpful to others if you use your email for communication outside of class and office hours because students cant always make the office hours. Please drop the "trick" questions in tests. Practically all professors ask them in any subject so don't feel guilty. They should quit so us students have a shot at making a 100 on an exam. Good job in lectures."
- **38.** CISC2330 Structure Programming fundamentals (With Java) (Fall 2014): "I didn't take the intro class. the professor really helped me push through and complete the course and hopefully pass."
- **39. CISC3321 Object-Oriented Programming (Fall 2014):** "Great class. Need to spend at most 2 weeks, no more, on chapters 1–6. That's all review, so if the students don't know it already they can read the book on their own time. Need to spend at least a month, if not more, on the final project. I had so much work on my plate I wasn't able to help much on the project. That wouldn't happen if I was able to work on a little bit at a time over the course of a month. The material was explained well and Dr. Gang was great at answering questions."
- **40. CISC3321 Object-Oriented Programming (Fall 2014):** "Nothing you have not heard before. Just make the part were you go over the stuff covered in previous classes a lot shorter to spend more time the new stuff. Also try adding some more time for the window app in visual studio. I would have like to have had more time spent on that."

- **41. CISC2305 Introduction to Computer Science (Programming with Java) (Spring 2013):** "Professor Gang is a very good teacher. Any questions you might have for him are answered. If you do what he tells you to do you will learn a lot about programming. There is often a lot of work but it is worth it. Taking this course had made me want to study harder and learn more about programming."
- **42. CISC2305** Introduction to Computer Science (Programming with Java) (Spring 2013): "If any of my answers appear negative, understand that I started this class knowing most of the material, and, so I personally did not get a lot out of it. I am of the opinion that if I hadn't already known the material, that I would definitely learned it by the end of the course. I look forward to the more advanced course I'm taking with him next fall."
- 43. CISC2330 Structure Programming Fundamentals (With C++) (Spring 2013): "Mr. Gang has been one of the worst professors I have had here at UMHB. Iv had him for two classes so far, and both of them I have received a grade lower than I should have because he takes a crazy long time to grade assignments and when he does he does not grade them right, it's as if he takes joy in giving someone a zero. And if you email him with a question about the assignments it takes him 3+ weeks to get back to you and after you remind him multiple times about it. This has happened to me twice so far and it's something that needs to be fixed soon. I currently have a C in the class when I should have a very high B. I have a scholarship that needs a certain gpa to keep and from his terrible grading system I might loose the scholarship. Bad teacher."
- **44.** CISC2330 Structure Programming fundamentals (With C++) (Spring 2013): "I found this class interesting and learned a good deal about programming in the C++ language."
- **45.** CISC2305 Introduction to Computer Science (Programming with C++) (Fall 2013): "Dr. Gang could always find time to assist me when I needed assistance. This, as well as collaboration from the class, made this course a very reasonable and enjoyable class."
- **46.** CISC2305 Introduction to Computer Science (Programming with C++) (Fall 2013): "I would take another class from Dr. Gang. He is very intelligent and tries to explain things at a level that everyone in the class can learn. He gives students every opportunity to succeed. He makes sure that all students are properly informed and have all the tools needed to complete each assignment."
- **47.** CISC2330 Structure Programming Fundamentals (With Java) (Fall 2013): "Professor needs to make fewer mistakes when creating tests/assignments. He did a good job with covering important material and he tried his best to make sure the class stayed caught up with everybody."
- **48.** CISC2330 Structure Programming Fundamentals (With Java) (Fall 2013): "When evaluating questions 21–32 it should be understood that I already understood most of the concepts and my answers reflect that and not the quality or quantity of information in the course."

- **49. CISC3321 Object-Oriented Programming (Fall 2013):** "I think this class could be improved by covering both the Windows Forms programming and console programming, rather than solely console programming. Also, working out examples programs more clearly in class would help to understand the concepts better. We did cover example programs, but I think that a lot of times we went over them too quickly to understand them."
- **50. CISC3321 Object-Oriented Programming (Fall 2013):** "I think this class could be improved by covering both the Windows Forms programming and console programming, rather than solely console programming. Also, working out examples programs more clearly in class would help to understand the concepts better. We did cover example programs, but I think that a lot of times we went over them too quickly to understand them."
- **51.** CISC2305 Introduction to Computer Science Programming (with C++) (Spring 2012): "His overal knowledge of the course "contributes to his teaching effectiveness""
- **52.** CISC2305 Introduction to Computer Science Programming (with C++) (Spring 2012): "great teacher and communicator."
- **53. CISC4305 Algorithms & Data Structures (With C++) (Spring 2012):** "His knowledge of the material contributes to his teaching effectiveness."
- **54. CISC4305 Algorithms & Data Structures (With C++) (Spring 2012):** "Adding a lab to this class would greatly benefit the learning experience and allow the instructor to go more in depth about the material."
- **55. CISC4346 Games Programming II (Spring 2012):** "Dr. Gang should probably do more projects than assignments in order to stimulate thinking and to promote skill improvement."
- **56. CISC4346 Games Programming II (Spring 2012):** "I strongly suggest Dr. Gang do some kind of review in order to better prepare students for exams. He should also word some of the questions to his exams more carefully in order to avoid confusion for some terms."
- **57. CISC2305** Introduction to Computer Science (Programming with c++) (Fall 2012): "Will try to explain more if you ask."
- **58.** CISC2305 Introduction to Computer Science (Programming with C++) (Fall 2012): "He would always ask if anyone didnt understand the material and if he needed to slow down."
- **59. CISC2330 Structure Programming fundamentals (With Java) (Fall 2012):** "his powerpoints and lectures says it all."

- **60. CISC2330 Structure Programming fundamentals (With Java) (Fall 2012):** "Verbal Communication with class during lectures; getting the class involved are some of his key strengths."
- **61. CISC3321 Object-Oriented Programming (Fall 2012):** "Open all of the assignments in MyCampus at the beginning of the semester, so that we can work ahead so that we can quickly complete the projects that come easy to us in order to make extra time for the projects that we need extra time on."
- 62. CISC4347 Graphics Programming (Fall 2012): "One of the best parts of this class is that Dr. Gang has been giving us assignments which force us to learn hands-on how to actually use some of the things he talks about in class. This is definitely how I have learned the most in this class. Another thing I really appreciate about Dr. Gang is that whenever I am uncertain what he is asking on a test question, he makes himself available to clarify the question so that I can answer it properly. I also appreciate that once, when I confused an assignment with a very similar assignment we had done the week previously and did not start working on it until the day it was due, Dr. Gang was very available and helpful when I went down to the lab to work in the afternoon and encouraged me to return to the lab when the cleaning lady had mistakenly chased me out. He was also very merciful to me and gave me full credit for the lab even though I could only turn in an incomplete version by the due date and emailed him a completed version several hours later."
- 63. CISC4347- Graphics Programming (Fall 2012): "His knowlege of Material is very helpful"
- **64. CISC2330 Structure Programming fundamentals (With Java) (Fall 2011):** "He would go over the material until he felt that the class understood it and often asked if there was anything he could do to make the class better."
- 65. CISC2330 Structure Programming fundamentals (With Java) (Fall 2011): "Great teacher."
- **66. CISC3321 Object-Oriented Programming (Fall 2011):** "Instructor encourages students to be self motivated in their study. Instructor also attempts to understand student's knowledge of topic, then teach appropriately for that level. Finally, instructor understands that being hard on students is to their advantage."
- **67. CISC3321 Object-Oriented Programming (Fall 2011):** "Dr. Gang covered a lot of material in this class (including material which we should have gotten in Structured Programming Fundamentals and didn't) and expected us to actually work."
- **68. CISC4345 Games Programming I (Fall 2011):** "Dr. Gong is g00n. He is very comfortable with the class which make class periods fun and informative. When one way of teaching didn't work so well he adapted quickly to help us pick up the knowledge fully and quickly."

- **69. CISC4345 Games Programming I (Fall 2011):** "Dr. Gang actually requires students to know what they are talking about. He allows students to learn on their own time which assists in the comprehension of topics. I really enjoyed having Dr. Gang as a professor!"
- **70. CISC4347- Graphics Programming (Fall 2011):** "Not a push over had some challenges, and made us learn more than we would have before."
- **71. CISC4347- Graphics Programming (Fall 2011):** "Nothing I think he is a great teacher. Just dont let the lazy students ruin him:)."

Gang, Isaac University of Mary Hardin–Baylor

CISC 2305 01 Introduction to Computer Science M W F 09:00:00 Fall 2015

Local code: 121 6

To learn more, see the Interpretive Guide: www.theideacenter.org/diagnosticguide.pdf



Your Average Scores

	Your A (5-poin	
	Raw	Adj.
A. Progress on Relevant		
Objectives ¹		
Three objectives were selected as		
relevant (Important or Essential -see	4.6	4.4
page 2)		

Overall Ratings		
B. Excellent Teacher	4.5	4.2
C. Excellent Course	4.3	4.0
D. Average of B & C	4.4	4.1

Summary Evaluation (Average of A & D) ¹	4.5	4.3	
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¹ If you are comparing Progress on Relevant Objectives from one instructor to another, use the converted average.

Your Converted Average When Compared to All Classes in the IDEA Database

	A B**				Overall	Ratings	3		Summary	
Comparison Category	A. Progress on Relevant Objectives			B. Excellent Teacher		C. Excellent Course		D. Average of B & C		ation age of D)
	Raw	Adj.	Raw	Adj.	Raw	Adj.	Raw	Adj.	Raw	Adj.
Much Higher Highest 10% (63 or higher)										
	62									
Higher Next 20% (56-62)		59			57				59	
					37		56			
Similar Middle 40% (45–55)			54	51		51		51		55
Lower Next 20% (38-44)										
Much Lower Lowest 10% (37 or lower)										

Your Converted Average When Compared to Your:²

Discipline (IDEA Data)	62	61	56	54	56	53	56	54	59	58
Institution	56	57	52	51	52	50	52	51	54	54

IDEA Discipline used for comparison:

Computer Science

UMHB Undergraduate Sample

² The process for computing Progress on Relevant Objectives for the Discipline and Institution was modified on May 1, 2006. Do not compare these results with reports generated prior to this date.

The University of Southern Mississippi

- **1. CSS240 FORTRAN Programming (Spring 2011):** "Dr. Gang is a valuable asset to the USM community. He will definitely be missed."
- 2. CSS240 FORTRAN Programming (Spring 2011): "Excellent Instructor."
- **3.** CSS331 Visual Basic Programming (Spring 2010): "Issac Gang is patient and willing to work with students at a reasonable pace. I came away from this course knowing more than I'll ever need to know on the subject."
- **4. CSS331 Visual Basic Programming (Spring 2010):** "I appreciated the good yet terse introduction to VB, however I found the lack of interest or dedication of the other students a severe problem, because they held back others who would have gained more from the course had it covered more advanced topics. I would recommend better screening of future students of this course so that those who don't have any programming experience are relegated to lower courses. The Instructor did his best to overcome this problem, and I do feel somewhat enlightened by the class. I was only disappointed that I wasn't challenged more."
- **5. CSS331 Visual Basic Programming (Spring 2010):** "I thought that the class was structured very well. Powerpoints were very informative. Needs to work on delivering his message just a little bit clearer, or use terms that most would understand. I enjoyed having him as a teacher, and enjoyed his class just as much."
- **6. CSS331 Visual Basic Programming (Spring 2010):** "Mr. Gang is a great motivator and really cares about the students. He is an inspiration."
- **7. CSC100 Introduction to Computing (Fall 2010):** "I liked this class because it was easy to follow along with everything."
- 8. CSC100 Introduction to Computing (Fall 2010): "I enjoyed the class i learned a lot."
- **9. CSC100 Introduction to Computing (Fall 2010):** "This was a very helpful class. This class taught me skills that i will need to know and will probably use in the work force."
- **10. CSC100 Introduction to Computing (Fall 2010):** "The course was quite interesting. It showed me a lot of things about computer software that i did not know about."
- **11. CSC100 Introduction to Computing (Fall 2010):** "Going into this class I thought I knew a lot about computers, but it turns out I learned a lot."

- 12. CSC100 Introduction to Computing (Fall 2010): "was a great class and i enjoyed the instructor."
- **13. CSC100 Introduction to Computing (Spring 2008):** "He was a decent teacher, would help out when we could. I think there should be less students in a lab so that the instructor can help them all without waiting the students waiting twenty minutes for help. I did not like the fact that he was usually ten minutes or more late each lab meeting."
- **14. CSC100 Introduction to Computing (Spring 2008):** "The lab was okay. It would have better if the instructor would have explained a lot more of the problems aloud that a majority of the students did not understand. Since the computer writing was knew to me, I feel that is was unfair for the instructor to allow us to use our notes on the first 11 labs, and not allow us any notes for the final. That is like babying us the entire time, then for the final, leaving us out to dry."
- **15. CSC100 Introduction to Computing (Fall 2008):** "I think Mr. Gang is a very good teacher. He may want to try changing the pace in class a little though, becasue most people who take this course think they already know what they need to know about computers, or it's like a foreign language to them (like it was for me). I think it would be more effective to include some of the projects during class to show us how to apply the knowledge we learn during class. It's a little different, and I think it would make the class more beneficial. But overall, the class was fine."
- **16. CSC100 Introduction to Computing (Fall 2008):** "fantastic professor most helpful always available and interested in you."
- **17. CSC100 Introduction to Computing (Fall 2008):** "Mr. Gang is great at explaining things, and he respects his students. The one problem that I had was that he gave in too much to some of the kids in class and would rescedule tests, homework, etc. when I had already done the work. Just felt that it wasn't fair.."

Graduate Data:

1. CSCI532 - Algorithm Design (Spring 2019): "Professor Gang is a very fair teacher with reasonable expectations. If you show effort and problems/concerns arise, he will work with the students in finding a solution. This class is online therefore little interaction occurs between student and professor. However, I would like to see more examples worked by the professor as students generally learn better by seeing the step rather than reading a book with hard to understand content and figuring out the steps. Professor Gang has recently began using online videos to assist in lectures which is great, however it is toward the end of the semester when started. In the professors defense, he started after an internal evaluation made this requested. I am personally not a fan of discussions as they really dont promote student interaction and seem like busy work, which most students have jobs, family, etc. and

dont need additional busy work. Professor Gang does will at communicating with students and replying to emails regarding questions about the material or just concerns. Lastly, Professor Gang provides a decent amount of homework and labs for a 3 hour credit course which generally takes a full week to complete. This seems like a lot for the credit hours and the tests are a reflection of the homework. The problem is you dont have a week on the test. The same or similar questions on the exam are very lengthy just like the homework and require a lot of time to complete. So the exam process needs to be

2. CSCI532 - Algorithm Design (Spring 2019): "Material was great! I would definitely suggest all of my friends to take this course under the same professor."

re-evaluated to account for this."

- **3. CSCI532 Algorithm Design (Spring 2019):** "Every time Dr. Gang highlights the fact that this course is not ideal for online which is very true. But he did his best to make the course interesting by giving a assignments, ITLs and discussion topics every week. And he really considers students feedback and takes prompt actions on the concerns."
- **4. CSCI532 Algorithm Design (Summer 2018):** "Dr Issac Gang makes the class very interesting. This gives me a lot of interest to engage in the class, improve my skills and abilities that forms as a solid base for my future."
- **5. CSCI532 Algorithm Design (Summer 2018):** "I strongly recommend for other new students to take algorithm design under ISSAC GANG. As it is a Core Course, we can gain good knowledge and Worth the time spending under this professor."
- 6. CSCI532 Algorithm Design (Fall 2017): "Thank you for the effective and strong learning."
- **7.** BCIS6370- Information Systems Security (Spring 2015): "Dr. Issac is an excellent professor, he explained in depth of the subject."
- **8. BCIS6370- Information Systems Security (Spring 2015):** "I would just like to comment that the Dr. Gang should be a little more lenient in terms of Assignments and work. Over the period of one semester, there was a lot of work that has been assigned to us even in the exam week."
- **9.** BCIS6370- Information Systems Security (Summer 2015): "I really like the way he teaches, he always explains all the important points. He gave us lot of knowledge I m proud to have professor like you."
- **10.** BCIS6370- Information Systems Security (Summer 2015): "Dr. gang clearly explains, make us understand the topic and clears our doubts on the spot. this course is quite useful in many ways as it helps how to secure our data and what are the solutions for the problems occured."

Course-Section Report for Isaac Gang - 80235 Algorithm Design

Comparative Analysis - Score Tables

Instructor Questions

Question	Instructor		Dept (Computer Science & Info Sys)		School (Science & Engineering)		University	
	Response Count	Mean	Response Count	Mean	Response Count	Mean	Response Count	Mean
The instructor demonstrated knowledge of course materials.	13	4.85	527	4.44	3700	4.48	15961	4.56
The instructor was prepared for class.	13	4.62	526	4.33	3695	4.39	15946	4.46
The instructor was available outside of class.	13	4.92	526	4.31	3696	4.31	15934	4.34
The instructor stimulated interest in the course.	13	4.92	524	4.30	3694	4.27	15937	4.38
The instructor treated students fairly and impartially.	13	4.92	527	4.47	3698	4.46	15943	4.48
The instructor set high standards that challenged me in this course.	13	4.85	526	4.34	3694	4.40	15937	4.45
I was provided with timely comments, responses and positive constructive feedback.	13	4.92	526	4.20	3697	4.24	15935	4.31
I would recommend this instructor to another student.	13	4.85	526	4.20	3697	4.16	15925	4.28
Overall	-	4.86	-	4.32	-	4.34	-	4.41

Course Questions

Question	Instructor		Dept (Computer Science & Info Sys)		School (Science & Engineering)		University	
	Response Count	Mean	Response Count	Mean	Response Count	Mean	Response Count	Mean
The course description accurately reflected the content of the course.	13	4.77	523	4.43	3666	4.43	15483	4.50
Expectations were clearly outlined in the syllabus.	13	4.77	524	4.39	3661	4.39	15478	4.45
Reading assignments were of reasonable length and level.	13	4.85	520	4.38	3657	4.31	15452	4.37
Exams covered important course materials and content.	13	4.92	524	4.38	3653	4.34	15439	4.40
Overall, this course has stimulated my interest in this subject.	13	4.92	519	4.25	3642	4.06	15389	4.22
Overall	-	4.85	-	4.37	-	4.31	-	4.39

Texas A&M University-Commerce Graduate Sample 1

Comparative Analysis - Score Tables

Instructor Questions

Question	Instructor		Dept (Computer Science & Info Sys)		School (Science & Engineering)		University	
	Response Count	Mean	Response Count	Mean	Response Count	Mean	Response Count	Mean
The instructor demonstrated knowledge of course materials.	22	4.59	520	4.54	3713	4.53	14142	4.57
The instructor was prepared for class.	22	4.55	519	4.49	3710	4.47	14132	4.48
The instructor was available outside of class.	22	4.77	519	4.40	3705	4.33	14125	4.36
The instructor stimulated interest in the course.	22	4.73	520	4.43	3706	4.34	14123	4.39
The instructor treated students fairly and impartially.	22	4.77	521	4.56	3712	4.48	14136	4.48
The instructor set high standards that challenged me in this course.	21	4.57	519	4.48	3703	4.44	14119	4.48
I was provided with timely comments, responses and positive constructive feedback.	22	4.68	521	4.43	3708	4.30	14119	4.33
I would recommend this instructor to another student.	22	4.64	520	4.36	3700	4.26	14112	4.31
Overall	-	4.66	-	4.46	-	4.39	-	4.42

Course Questions

Question	Instructor		Dept (Computer Science & Info Sys)		School (Science & Engineering)		University	
	Response Count	Mean	Response Count	Mean	Response Count	Mean	Response Count	Mean
The course description accurately reflected the content of the course.	22	4.68	517	4.53	3680	4.49	13739	4.51
Expectations were clearly outlined in the syllabus.	22	4.59	516	4.48	3674	4.45	13726	4.47
Reading assignments were of reasonable length and level.	22	4.50	514	4.42	3669	4.36	13701	4.40
Exams covered important course materials and content.	22	4.64	514	4.46	3664	4.42	13692	4.44
Overall, this course has stimulated my interest in this subject.	22	4.55	510	4.35	3655	4.17	13628	4.26
Overall	-	4.59	-	4.45	-	4.38	-	4.42

Texas A&M University-Commerce Graduate Sample 2

Gang, Isaac University of Mary Hardin-Baylor

BCIS 6370 26 Information Systems Security M 18:00:00 Spring 2015 Local code: 221 27



To learn more, see the Interpretive Guide: www.theideacenter.org/diagnosticguide.pdf

Your Average Scores

	Your A (5-poin	verage t scale)
	Raw	Adj.
A. Progress on Relevant Objectives ¹		
Four objectives were selected as relevant (Important or Essential -see page 2)	4.5	4.0

Overall Ratings		
B. Excellent Teacher	4.4	4.1
C. Excellent Course	4.6	4.0
D. Average of B & C	4.5	4.1

Summary Evaluation (Average of A & D) 1 4.5 4.1		4.5	4.1
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¹ If you are comparing Progress on Relevant Objectives from one instructor to another, use the converted average.

Your Converted Average When Compared to All Classes in the IDEA Database

		Summary									
Comparison on Rel		. Progress n Relevant Objectives		B. Excellent Teacher		C. Excellent Course		D. Average of B & C		Evaluation (Average of A & D)	
	Raw	Adj.	Raw	Adj.	Raw	Adj.	Raw	Adj.	Raw	Adj.	
Much Higher Highest 10% (63 or higher)											
Higher Next 20% (56–62)	61				60		57		59		
Similar Middle 40% (45–55)		53	54	49		51		50		52	
Lower Next 20% (38–44)											
Much Lower Lowest 10% (37 or lower)											

Your Converted Average When Compared to Your:²

Discipline (IDEA Data)	64	59	55	51	62	53	59	52	62	56
Institution	56	51	52	49	56	50	54	50	55	51

IDEA Discipline used for comparison:

Business Information & Data Processing Services

UMHB Graduate Sample

² The process for computing Progress on Relevant Objectives for the Discipline and Institution was modified on May 1, 2006. Do not compare these results with reports generated prior to this date.



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