Jose Jonathan Gamez

Education

Doctor of Philosophy

University of North Texas
Department of Learning Technologies
Dissertation Interest in Learning Analytics
Expected Graduation Date: May 2027

Master of Science, Mathematics

University of Texas – El Paso
Master Thesis: Dihedral Cayley Directed Strongly Regular Graphs
May 2012
GPA: 3.60

Bachelor of Science, Applied Mathematics

Applied Statistics Minor
University of Houston – Downtown
Thesis Project: Independence Number, Independent Domination Number
December 2008
GPA: 3.34

Professional Experience

Lone Star College Kingwood

Fall 2013 – Present

- Currently a Full – Time Faculty Member, Faculty Mentor, the Math Tutoring Liaison for the Tutoring Center, and one of two Math Faculty Curriculum Team Members for the System's Curriculum Team.
- Taught the following courses face-to-face and fully online (Asynchronous): Developmental Math Courses (0306, 0308, 0310), Co-Requisite Math Courses (College Algebra, Math 0314/1314), Stand-alone Math Courses (College Algebra Math, 1314), Trigonometry (Math 1316), Pre-Calculus (Math 2412), Calculus Series Math Courses (Math 2413, Math 2414, and Math 2415), Discrete Mathematics (Math 2305), Finite Mathematics (Math 1324), and Business Calculus (Math 1325).
- Assisted students overcome learning and content struggles by promoting in-person and virtual office hours, tutoring services, and various educational resources to accommodate different learning styles.
- Involved with several Math Textbook and Hiring Committees. I am also one of two Curriculum Team Members for the system.
- Mentored an honor student in mathematics.
  - We completed a total of two math research projects. Furthermore, we presented our first Lone Star College-Kingwood Campus Math Project in Fall of 2021 and the second project in Spring of 2022.
    - *"Trial by Time: A Study on the Integration of Corequisite Courses in Higher Education"*
      Spring 2022, Student: Emily Maxwell
    - *"A Pixel A Day: An Analysis of Matrix Operations in Real World Applications,"*
      Fall 2021, Student: Emily Maxwell
- Currently working as the Math Department's Liaison at the Tutoring Center.

- o Coordinated a monthly Faculty – Tutor Math Workshop.
    - The Math Faculty members have the opportunity to show our tutors specific problems our students struggle with per semester.
  - o Rewarded a Mini-Grant in Fall 2022. The Mini-Grant will be used to financially pay our current math tutors their access to an online platform we will use in our Mini-Statistics Bootcamp. The goal is to help our Math Tutors become Statistics Tutors, since we currently only have one Math tutor able to tutor in Statistics.
  - o Assisted in facilitating a college – wide event called "Exam Jam," where the focus was to help our students prepare for their final exams. We hosted several review sessions and at the end of the event (Math, Speech, Chemistry, Physics, Engineering, and Biology), a few of our faculty including myself were pied by our students. In Spring 2023, we plan on continuing with the event and hope to include online review sessions. Our goal is to see how impactful the event has over student performance.
- Currently mentoring a recently hired full-time faculty member.
  - o Had weekly meetings where we go over teaching, lesson plan, and classroom strategies.
  - o Observed each other's classroom once this semester for feedback and recommendations.

San Jacinto College North Campus
Adjunct Faculty of Mathematics
Fall 2018 – Present
- Taught utilizing Blackboard and MyOpenMath for the following online (Asynchronous) and face-to-face courses: College Algebra (Math 1314), and Calculus 2 (Math 2414).
- Graded assignments in a timely manner to ensure my students had proper feedback before the next major assignment. Moreover, I've promoted virtual and in-person office hours for my students throughout the semester.

University of Houston Downtown (UHD)
Fall 2012 – Present
Adjunct Faculty of Mathematics
- Taught the following courses face-to-face and fully online (Synchronous and Asynchronous) utilizing Blackboard, MyLabMath, and Cengage: Business Statistics (STATS 3301), Trigonometry (1302), College Algebra (Math 1301), PreCalculus (Math 1505), and Calculus 1 (Math 2401)
- Served on the College Algebra Final Exam Committee in past semesters. Moreover, I worked as a math tutor for the Math Department leading individual and group-led sessions.
- Tutored all freshmen and sophomore math courses at the tutoring center in past semesters.

Houston-Prep
June 2009 – July 2012
University of Houston – Downtown
https://www.uhd.edu/academics/sciences/houston-prep/Pages/default.aspx
- Houston Prep is a Summer Enrichment Program for Middle and High School Students. The program prepares students for successful career at the University.
  - Taught the following concepts to students: Logic, algebraic graph theory, algebraic systems, and engineering.
  - Collaborated as the program's liaison in Acapulco, Guerrero Mexico.
    - o Had clear communication and fellowship with our sister program's administration while in Mexico.
    - o Taught Logic and Engineering subjects at the Technológico de Monterrey to students enrolled in the program.
    - o *Achieved* the Program's goal with student performance at a college level and passed at 100% their logic and engineering exams in English.

Research Experience

Past Research Work
Mathematics: Design Theory
Collaborator: Dr. Art Duval
Topic: Directed Strongly Regular Graphs
August 2012 – August 2015

- Worked with Dr. Art Duval in search for more families of Directed Strongly Regular Graphs using other algebraic structures and Mathematica, a computer program.
- Had weekly meetings via Skype and presented in several Math Conferences and Workshops. (http://homepages.cwi.nl/~aeb/math/dsrg/dsrg.html)

University of Texas – El Paso   Spring 2010 – Spring 2012
Mathematics Thesis   Bridge to the Doctorate Fellowship

- Researched with Art Duval, as a Bridge to the Doctorate Fellow, in design theory where we applied basic mathematical principles, research methods and procedures, and mathematical techniques.
  - Found graph relationships using the definition of a Directed Strongly Regular Graph (DSRGs) and the Dihedral Algebraic Group from a computer search.
  - Communicated with my advisor and exchanged ideas for possible solutions in the process of my master's program.
- *Achieved* a new graph construction of infinite families of DSRGs through a *computer search* in Mathematica, and successfully defended my thesis in May 2012.

Graduate Research
Mathematics: Graph Theory
Thesis: Directed Strongly Regular Graphs
Research Advisor: Art Duval, Ph.D.
January 2010 – January 2012

- Worked with Dr. Art Duval studying a math concept called the Directed Strongly Regular Graphs (*DSRGs*).
  - **Definition**: A *DSRG* is a simple regular connected graph with the following definitions.
    - If there is an edge from x to y, then there are lambda paths of length 2 from x to y. If there is not an edge from x to y, then there are μ paths of length 2 from x to y. The parameter t counts the paths of length 2 from x to itself. This indicates that G is high in symmetry. Along this same note, I used the dihedral group and Cayley graphs to assist my search.
- Used *the computer program Mathematica* to help *restrict* my search for *DSRGs*, which we found, and generalized to a family of *DSRGs*.

Senior Project
Applied Mathematics: Graph Theory
Conjectures about Dominating Subsets of a Graph
Research Advisor: Ryan Pepper, Ph.D.
January 2008 – December 2008

- Investigated under Dr. Ryan Pepper's mentorship that:
  - No linear function of the residue of a graph will be an upper bound on the independent domination number.
  - Collected upper and lower bounds on the independent domination number of connected graphs by proving some conjectures generated by, or inspired by, Dr. DeLaViña's *computer program, Graffiti.pc*.
- *Completed* a proof of minimality for a particular upper bound conjecture for the independence number in terms of the maximum degree of a graph.

Awards

Faculty Excellence Award – Nomination
Lone Star College Kingwood Campus
Spring 2023

Mini – Grant Statistics Bootcamp
Lone Star College Kingwood Campus
Fall 2022

- Used to fund our math tutors access to an online Platform called ALEKS.
- Focused on Statistics (Math 1342) and taught in a series of workshops in Spring 2023.
    - Prepare current math tutors to tutor statistics, since we only have one tutor tutoring in statistics.

Bridge to the Doctorate Fellowship
National Science Foundation
University of Texas – El Paso
Spring 2010 – Spring 2012

- Funded by the National Science Foundation with the Bridge to the Doctorate Fellowship to pursue a graduate degree in mathematics.
    - Allowed me to conduct research, attend, and *present in distinguished conferences* such as CombinaTexas, and met distinguished Scientist, Engineers, and Mathematicians.

Houston – Louis B. Stokes Alliance Scholarship (LSAMP)
National Science Foundation
University of Houston – Downtown
Fall 2003 – Fall 2008

- Funded by the National Science Foundation with the LSAMP scholarship.
    - Gave me the opportunity to conduct research in mathematics, attend conferences, and grow as a mathematician.

Organizations/College Clubs

Texas Association of Chicanos in Higher Education (TACHE)
Lone Star College Kingwood Chapter Advisor
Fall 2022

- Focused to improve the educational and employment opportunities for LatinX in higher education. Our goals are to promote educational advocacy, networking opportunities, and cultural promotion to our student body at Kingwood.
- Collaborated with other Kingwood Faculty and Staff to bring to the campus a local chapter. Furthermore, I was also a facilitator in the conference held in Houston.

African American and Hispanic Institute for Males (AAIM/HIM)
Lone Star College Kingwood
Summer 2022
Mentor

- The institute provided workshops on cultural heritage, life skills, interview etiquette, and college preparedness to incoming freshmen male students of color.
    - Gave a talk about the Mayan Numbers and how they've computed their mathematics in their number system of base 20 and how this system was heavily seen in the Mayan Culture. Furthermore, chaperoned a tour of the University of Houston Downtown campus.

Professional Development/Workshops

Workshops:

- Fall Semester 2022 Faculty – Tutor Workshops
  - Coordinated three workshops between full – time math faculty and math tutors as the Math Liaison.
    - In these workshops, the faculty members present certain topics in the Calculus, Statistics, and Finite Math courses that students struggle with per semester.
    - My goal is to see a correlation between student performance and the number of visits to the tutoring center.
- Spring and Fall Semesters 2021 Workshops
  - Attended Calculus Chat Seminars hosted by a Senior Faculty Member. In these workshops, we exchange ideas to provide better practices and strategies in our Calculus Courses.

Professional Development Seminars:

- What you say Matters Webinar, Spring 2022
- Leading the LSC Focus Way – Coaching the Culture Webinar, Spring 2022
- Texas Association of Chicanos in Higher Education (TACHE): Juntos a la Mesa: Feeding our Bodies, Minds & Souls Professional Development Day at UHD, Fall 2021
- Clifton Strengths Seminar, Fall 2021
- Expressing Empathy, Fall 2021
- Introduction to Power BI (Statistical Analysis tool used to analyze student enrollment, completion, success, and retention) and AIR Service Tools Seminar, Summer 2021
- Overview of Leadership Development Programs at Lone Star College, Fall 2020
- Search Committee Training Seminar, Fall 2020
- Core Assignments Seminar, Fall 2019
  - Participated in the Lone Star College Core Assessment Rubric Committee and learned to use this measurement tool to align an assignment with a core assessment.
- Online Teaching Certification, Fall 2019

Presentations/Conferences Attended

- Pearson Digital Leadership Forum Conference, Fort Worth, Texas, February 2023
  - In this conference, we will discover digital technologies that extend, connect, and expand learning experiences in new ways, strengthening connections between learners and educators.
    - Faculty Outcomes:
      - Gain new strategies and connections to support teaching and learning goals
      - Learned from experts in the field, authors who write and teach from the content, and faculty advisors who are skilled with implementation, and
      - Contributed to shaping technology enhancement and courseware development with an eye on DE&I.
- The 48th Annual TACHE Conference, Houston TX, February 22 – 25, 2023
  - Iluminando Nuestro Futuro: Honoring our History and Illuminating the Future of Latinx Intersectionality in Higher Education.
- 76th Annual Texas College Teachers' Association Convention, Houston TX, Spring 2023
  - TCCTA is dedicated "to the pursuit of excellence in teaching and the advancement of education in the community, junior, and technical colleges of Texas." In this conference, LSC employees have the opportunity to come together and share knowledge regarding higher education and how LSC can achieve desired results in student success.
- Faculty Institute, Fall 2021
  - Professional development sessions of current topics relevant to faculty and the classroom.
    - Attended talks focused on how technology can assist student success, completion, and retention in math courses.
- Faculty Symposium, Fall 2020.

o   Focused on best practices in relation to faculty qualities of excellence, academic core, workforce, transfer, and student services. Moreover, many of the sessions I attended were focused on how technology can be used to better serve our students.

As a graduate student, I presented my research work at the following conferences:
- Thesis Oral Defense
  University of Texas – El Paso, May 2012
- 10th Joint UTEP/NMSU Workshop
  Mathematics, Computer Science, and Mathematical Sciences
  University of Texas – El Paso, November 5, 2011
- CombinaTexas
  Combinatorics South – Central USA
  Sam Houston State University, April 16 – 17, 2011
- SunMarc 2010
  Mathematical Sciences, University of El Paso, March 5 – 7, 2010
- NSF 2010 Joint Annual
  Meeting LSAMP/Bridge to
  the Doctorate Washington
  D.C, June 6 – 9, 2010

As an undergraduate, I presented my research work at the following places:
- University of Houston – Downtown
  Senior Project Oral Presentations: Graph Theory
  "Two Conjectures about dominating subsets of a graph"
- Sam Houston State University
  Mathematics Conference
  "Independent Domination Number," September 27, 2008
- University of Houston Downtown
  Student Research Conference
  "Conjectures about the Independent Domination Number," April 10, 2008

As an undergraduate, I attended the following conferences:
- Google Inc.
  Computing Alliance of Hispanic Serving
  Institutions (CAHSI), 3rd Annual Meeting, January 15 – 18, 2009
- HENAAC Conference
  Houston, Texas, Fall 2008

Skills
- Computer Languages: Mathematica, Beamer, and LaTeX
- Software and Tools: MS Office, Zoom, and WebEx
- Bilingual: Spanish
- Lesson Plan Development
- Learning Online Platforms: MyMathLab, Blackboard, D2L, Connectmath, ALEKS, Connect, Cengage

Interest

- Enjoy playing soccer and seeing matches occasionally with friends and family.
- Occasionally go fishing with family and friends.
- Work on math problems from Calculus, Abstract Algebra, and Discrete Mathematics topics.

References

Upon Request.