

ZACHARY CHAIREZ

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EDUCATION

Texas A&M University - Corpus Christi

August 2018 - May 2020

M.S. in Applied Mathematics

Overall GPA: 4.0/4.0

Thesis: "Spatial-Temporal Models of Multi-Species

Interactions to Study Impacts of Catastrophic Events"

Department of Mathematics and Statistics

Texas A&M University - Corpus Christi

August 2018

B.S. in Mathematics

University GPA: 3.92/4.0

Department of Mathematics and Statistics

TECHNICAL STRENGTHS

Computer Languages

MATLAB, R, and Python

Software & Tools

LaTeX

EXPERIENCE

University of Texas at Arlington

Sept 2020 - PRESENT

Graduate Teaching/Research Assistant

- Prepare, present and guide students through Calculus based assignments.
- Creatively instill mathematical foundations in students for future mathematics and science classes.
- Respond to students' emails quickly and respectfully with suggestions and actions necessary to complete labs.
- During the Spring semesters, actively research relevant information pertaining to dissertation topic.

Del Mar College

Sept 2018 - PRESENT

Professional Mathematics Tutor

- Listen, teach, and dynamically present concepts to students in Elementary Algebra to Differential Equations, as well as freshman/sophomore level Engineering and Physics.
- Actively encourage students to ask questions.
- Promote thought experiments, new study habits, and healthy communication skills.

Texas A&M University - Corpus Christi

August 2018 - May 2020

Graduate Teaching Assistant

- Prepare, present and guide students through MatLab-based calculus labs.
- Similar job duties as current Graduate Teaching Assistant position.

Texas A&M University - Corpus Christi

July 2019 - August 2019

Mathematics Instructor, Project GRAD

- Project GRAD is a nonprofit summer bridge program assisting students in Mathematics and English. I worked side by side with another mathematics instructor implementing various styles of hands-on mathematical learning techniques to propel struggling students to new heights.
- I lead the hands-on mathematics workshop following the lecture, engaging and challenging students to think critically and effectively.

TEXPrep

June 2019 - July 2019

Math and Technology Mentor

- Work closely with middle and high school students, covering topics in logic, physics, modular arithmetic, introductory group theory, statistics, engineering and design, as well as technical and professional writing.
- Monitor students throughout the day in and out of the classroom.

UNDERGRADUATE RESEARCH

Spring 2018, Modern Algebra, Exploratory Research Project

- "Lie Groups and their Role in Quantum Mechanics"
- I was asked to pick a related topic in Modern Algebra, but outside the scope of the class and produce a research paper with a minimum of 20 pages.

Spring 2018, Applied Modeling, Senior Capstone Group Project

- "Symmetries in Differential Equations"
- My group and I referred to the book "Symmetry Methods for Differential Equations" by Peter E. Hydon to understand examples and symmetry methods for differential equations in order to present what we learned to the class in a series of presentations throughout the semester.

CONFERENCES

CERF (Coastal & Estuarine Research Federation) 2019, Mobile, AL, Nov 04, 2019 - Nov 08, 2019

- Talk: "Spatial-Temporal Models of Multi-Species Interactions to Study Catastrophic Events"