

Michael A. Barmann

mbarmann@umass.edu | 401-808-5645 | Amherst, MA 01002

EDUCATION

University of Massachusetts Amherst, Amherst, MA

Master of Science in Applied Mathematics, September 2020

Bachelor of Science in Mathematics, May 2017

EXPERIENCE

UNIVERSITY OF MASSACHUSETTS AMHERST, Amherst, MA

Research Assistant (July 2020 - Present)

- Completed a research assistantship (Aug 2020) on modeling COVID-19 (advisor: Panayotis Kevrekidis).
- Develop and analyze differential equation models for the spread of COVID-19 using Python, in collaboration with Professors Panayotis Kevrekidis and Qian-Yong Chen.
- Perform parameter estimation and identifiability analysis on ODE models.

Calculus Teaching Assistant (September 2019 – May 2020)

- Led weekly discussion sections for Calculus I and Calculus II.
- Created numerous worksheets, review materials, and quizzes.
- Instructed and supported students remotely via Zoom videoconferencing.

Tutoring Lab Manager (September 2018 – May 2019)

- Assisted with staff orientation, planning, and training sessions.
- Coordinated staffing and assisted in organizing exam reviews.
- Maintained the general upkeep and organization of the lab.

ACTIVE LEARNING SERVICES, East Greenwich, RI

Course Instructor (June 2012 – August 2012, June 2013 – August 2013)

- Taught introductory and intermediate level chess courses to students ages 6-13.
- Taught introductory courses in video game development using the software GameMaker.
- Delivered engaging lessons that promoted student participation and creativity.

CHEMISTRY RESEARCH, Rhode Island College, Providence, RI

Science Fair Project (November 2011 - March 2012)

- Created a project for the Rhode Island State Science and Engineering Fair (RISEF) under the guidance of Professor John C. Williams.
- Utilized HyperChem molecular modeling software to study small molecule-DNA interactions.

COMPUTER SKILLS

- Python, R, Julia, Java
- LaTeX
- Microsoft Office (Word, Excel, PowerPoint)
- Scientific computing
- Data analysis and visualization

AWARDS

- Chancellor's Award, University of Massachusetts Amherst (2012)