Marshall Brandenburg

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EXPERIENCE

SANDIA NATIONAL LABORATORIES | Software QA
May 2022 – Sep 2022 | Albuquerque, NM

Tested web applications and API's for common security vulnerabilities such as SQL injection and cross-site scripting attacks. Performed load and stress tests before application deployment. Validated vulnerabilities and produced reports for the customer. Assisted module teams in development of automated functional testing scripts.

SANDIA NATIONAL LABORATORIES | Software Engineer
Nov 2020 – April 2022 | Albuquerque, NM

Developed Python and Bash scripts to automate the development process for physics simulation software while adhering to the scrum agile process. Produced a dashboard of test results of builds on high-performance systems. Maintained and upgraded a continuous integration and continuous delivery pipeline. Worked with developers to add new features in automated processes.

UNIVERSITY OF NEW MEXICO | Instructor
Jun 2020 – Jul 2020 | Albuquerque, NM

Taught the Calculus II curriculum for remote learning. Held office hours for supplemental instruction and clarification. Wrote and graded tests and quizzes. Managed a gradebook and collaborated with other faculty to provide the best remote learning experience for UNM students.

UNIVERSITY OF NEW MEXICO | Teaching Assistant
Jan 2019 – May 2020 | Albuquerque, NM

Held office hours for supplemental instruction, lectured recitation sections with nearly 20 students, proctored quizzes and exams, graded coursework, and entered grades. Worked alongside UNM faculty to facilitate an interactive learning environment for undergraduate University of New Mexico students.

MOSAIC ACADEMY | Educational Assistant
Nov 2017 – May 2018 | Aztec, NM

Assisted teachers in implementation of curriculum. Supervised students both on campus and on field trips. Worked with students in small groups to provide supplementary instruction. Helped teachers with administrative tasks and record keeping.

UNIVERSITY OF NEW MEXICO | Peer Learning Facilitator
Jan 2013 – May 2016 | Albuquerque, NM

Served undergraduate level students from varying backgrounds (minority students, first-generation, nontraditional) by facilitating student communication in an active learning environment in mathematics classes, as well as conducting office hours for students outside of class. Participated in weekly training to improve pedagogical methods.

EDUCATION

UNIVERSITY OF NEW MEXICO
M.S. - Computer Science
May 2022 | Albuquerque, NM

M.S. - Mathematics
July 2020 | Albuquerque, NM

B.S. - Applied Mathematics
May 2016 | Albuquerque, NM

SKILLS

PROGRAMMING
- Python
- HTML
- SQL
- Git
- Bash

TECHNICAL
- MS Office Suite
- Technical Writing
- Data analysis
- Googling

PROJECTS

MODELING COVID-19
Co-Author | Class Project
Aug 2020 – Dec 2020 | UNM
- Worked with a colleague to simulate COVID-19 infection in the upper airway of individuals with prior immunity.
- Used existing literature to fit data to the simulation and run on a high-performance system.

MASTER'S THESIS | Author
Aug 2019 – May 2020 | UNM

- Expanded on the research of my thesis advisor to prove the multivariate case of a published result.
- Proved that if a function on the p-adic integers (in the multivariate case) has a restricted power series representation, the function is analytic.