Logan Schelly

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Education

Bachelors of Science in Mathematics April 2020
Brigham Young University

- Applied and Computational Mathematics Emphasis (ACME)
- Computer Science Minor
- Recognized for outstanding performance in Mathematics in 2020 and 2018
- Routinely identified and reported the most typos in developing ACME textbooks

Skills

Programming Languages

- Python Very Comfortable used in 8 lab classes and 4 lecture classes
  - Amoung other things, I've used both the Selenium and pytest libraries in class projects.
- JavaScipt Beginner self taught at javascript.info, and listed as a contributor
  - My contributions are mostly testcases using Mocha/Chai so people can check their answers to exercises.
- Java Proficient, but rusty used extensively in 1 lecture class
- C Proficient used in 2 lecture classes
- C++ Proficient, but rusty used in 3 lecture classes

Other Tools

- LaTeX– Proficient
- Git – Intermediate
- HTML – Beginner

Soft Skills

Attention to Detail • Troubleshooting • Project Coordination

Work Experience

Head Upper Division Tutor Provo, UT
BYU Math Lab Sep 2014 – April 2020

- Helped students on a first-come first-served basis.
- Tutored Linear Algebra, Multivariable Calculus, Differential Equations, and Mathematical Proof classes.
- Over my tenure, helped thousands of students find mistakes in their work, or identify points of misunderstanding.
- Conducted weekly meetings to help our team of 10-20 upper division tutors prepare for that week's concepts.
- Coordinated exam reviews, and often taught them. 10 to 200 students attended, depending on enrollment and subject.
- Overhauled the tutor handbook.
- Expanded the tutor application test to include a Mathematical Proof section.

Relevant School Projects

Math Lab Student Sign Up Analysis Fall 2019 – Winter 2020

- Consolidated sign-up data spread across 60+ Excel files.
- Used Pandas to analyze the almost 900,000+ instances of students signing up for tutor help.
- Wrote a Python program that used Selenium to scrape the historical enrollment data at classschedule.byu.edu.
- Identified busiest times of the week, and the topics students most often came in for help with.
- Advised scheduling more tutors in the mornings based on my findings.

Inverted Pendulum Control Winter 2019

- Modified the Python code from the CartPole-v1 environment of OpenAI's gym library.
- Updated from Euler's method to Runge-Kutta.
- Applied an LQR control scheme to keep the pendulum upright.

Android App – Family History Map Summer 2018

- Wrote both the client and server in Java.
- Displayed family history data with a Google MapFragment.
- Implemented activities for log-in, map interaction, life event details, and app settings.
- Wrote the SQL commands that the server would use to store and retrieve user data.