# Logan Schelly

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## Education

## **Bachelors of Science in Mathematics**

April 2020

GPA: 3.17 out of 4.0

Brigham Young University

- Applied and Computational Mathematics Emphasis (ACME)
- Computer Science Minor
- Recognized for outstanding performance in Mathematics in 2020 and 2018

## Work Experience

Head Upper Division Tutor

Provo, UT

BYU Math Lab

Sep 2014 – April 2020

- Maintained excellent communication with math professors regarding assignment and exam schedules.
- Planned and coordinated exam reviews, and often taught them.
- Overhauled the tutor handbook.
- Expanded the tutor application test to include a Mathematical Proof section.
- Helped students on a first-come first-served basis.
- Tutored Linear Algebra, Multivariable Calculus, Differential Equations, and Mathematical Proof classes.
- Conducted weekly meetings to help our team of 10-20 upper division tutors prepare for that week's concepts.

#### Skills

## **Programming Languages**

- Python Very Comfortable
- C Proficient
- C++ Proficient, but rusty

- Java Proficient, but rusty
- JavaScript Beginner

# Other Tools

- LATEX Proficient
- Spreadsheets Proficient

- Git Intermediate
- HTML Beginner

## Soft Skills

- Tutoring
- Attention to Detail
- Troubleshooting

- Public Speaking
- Leadership

# **Projects**

Math Lab Student Sign Up Analysis

Fall 2019 - Winter 2020

- Consolidated data spread across 60+ Excel files.
- Used Pandas to analyze the almost 900,000+ instances of students signing up for tutor help.
- 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.

DNS Stub Resolver Winter 2020

- Program interfaced with DNS servers to look up IP addresses associated with a web domain name.
- Formatted queries to DNS standards, sent the queries with UDP, and then decoded responses.
- Written C with unistd.h, sys/socket.h, arpa/inet.h, and netinet/in.h.

## 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.