Logan Schelly

(951) 692-8802 • idyllogan@verizon.net

Education

Bachelors of Science in Mathematics   April 2020
Brigham Young University   GPA: 3.17 out of 4.0

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

Skills

Programming Languages (and Applicable Libraries)

Python —————— Very Comfortable ————————————————used in 8 lab classes and 4 lecture classes

- NumPy
- Scipy
- Pandas
- scikit-learn
- Selenium
- Beautiful Soup

C ——————— Proficient ————————————————————used in 2 lecture classes

- `unistd.h`
- `signal.h`
- `pthread.h`
- `sys/socket.h`
- `omp.h` (OpenMP)
- `regex.h`

C++ ———————— Proficient, but rusty —————————————————used in 3 lecture classes

Java ———————— Proficient, but rusty ————————————used extensively in 1 lecture class

JavaScript ———— Beginner ——————————————self taught at javascript.info, and listed as a contributor

Other Tools

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

Soft Skills

Tutoring • Attention to Detail • Troubleshooting • Public Speaking • Leadership • Project Coordination

Work Experience

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

- 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.

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.

HTTP Proxy   Winter 2020

- C program that relayed user requests to end server, and relayed server responses to user.
- Used `regex.h` to verify that user requests met HTTP formatting requirements.
- Handled concurrent requests with a threadpool using `pthread.h` and `semaphore.h`.

DNS Stub Resolver   Winter 2020

- Program interfaced with DNS servers to look up IP addresses associated with a web domain name. For example, it would figure out that the domain name www.example.com is associated with IP address 93.184.216.34.
- 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`.

OpenMP with Mandelbrot Set   Winter 2020

- Parallelized the Mandelbrot visualization code posted on github by Andrej Bauer.

Tiny Shell   Winter 2020

- Wrote a simple shell that could handle process creation, I/O redirection and pipelines, and process control.
- Used C with `unistd.h` and `signal.h`.