

Seth Campbell

Software Engineer - Provo, Utah

I enjoy learning about the inner workings of computers and computer programs, and I am pursuing a career as a lower level software developer in the computer systems and cybersecurity industries.

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🐙 github.com/scamp20

EDUCATION

Computer Science

Brigham Young University

08/2018 - Present (3.45 GPA)

Provo, Utah

WORK EXPERIENCE

Teaching Assistant - Discrete Structures

BYU Computer Science Department

01/2022 - Present

Provo, Utah

Achievements/Tasks

- Created relational database datalog programs in C++ and Python, and taught students to do the same through Lexical Analysis, Grammar Parsing, Query Interpreting, and Graph Theory.
- Used Github actions to autograde projects upon submission with makefiles (for C++ projects) and pytest (for python projects).
- Organized and trained other TAs as Head TA.
- Presented class lectures when needed and taught lab sessions regularly.
- Ran a busy help queue for 300+ students each semester.
- Graded homework and project assignments.

Reference: Michael Goodrich - mike@cs.byu.edu

Research Assistant - Software Developer / DevOps Engineer

BYU Family History Technology Lab

05/2022 - Present

Provo, Utah

Achievements/Tasks

- Developed new relativefinder.org Angular frontend for PC and mobile users. Developed on the Node.js backend and configured the AWS resources using Terraform.
- Migrated over a million data entries into a new schema/Postgres RDS database using SQL scripts.
- Developing a Websocket server in Rust for Jackbox styled family history games.
- Designed data models and algorithms for the https://games.fhtl.org/ backend.
- Created extensive README.md documentation for our backend development servers.

Reference: Mark Clement - clement@cs.byu.edu

SKILLS



PERSONAL PROJECTS

Simulated Annealing Algorithm (04/2023 - 04/2023)

- Implemented and presented a simulated annealing algorithm in Python (with a team) to solve the Traveling Salesman Problem.

Java Websocket Server (01/2023 - 05/2023)

- Created a Websocket server in Java and designed it to organize socket connections to games.
- Designed a lobby system where you can view and join active games.
- Tested the Websocket server using a dummy frontend in React.

Levi-Civita Tensor Torque Calculator (11/2022 - 11/2022)

- Created a torque calculator in C++ to manually calculate torque using a Levi-Civita Tensor.

Game Modding and Feature Expansion (08/2023 - Present)

- Modified source code for the "Super Fighters" web game extracted from an HTTP response in browser development mode, and changed the JavaScript in VSCode.
- Hope to continue modifying it in my spare time to allow more than 2 simultaneous players, and perhaps make it work over LAN.

ACTIVITIES

Cyber Patriot (08/2015 - 04/2018)

Blue Team Lead

BYU Chinese Club (08/2021 - 04/2022)

CERTIFICATES

A+ Computer Maintenance and Repair (05/2017 - 05/2020)

TestOut Security Pro (05/2018 - Present)

LANGUAGES

English
Native or Bilingual Proficiency

Mandarin Chinese
Limited Working Proficiency