Preston Locke

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EDUCATION

Macalester College, St. Paul, MN   *Bachelor of Arts Expected May 2022*

Major: Computer Science   *GPA: 3.7*

Coursework: Computer Systems Organization, Theory of Computation, Algorithm Design and Analysis, Software Design and Development, Computer Security and Privacy, Intro to Database Management Systems

SKILLS

Programming Languages:

C/C++	JavaScript	Python	Dart
Java	TypeScript	HTML5	CSS
Intel x86 Assembly	C#	PHP	SQL

Frameworks and Libraries:

Qt	C++ STL	Flutter	Node.js
JQuery	Firebase	Android	.NET

Software and Tools:

Linux	Windows	Git	Bash
GNU Debugger	Makefile	Webpack	Jest Unit Testing

EXPERIENCE

Teaching Assistant, Macalester College, St. Paul, MN   *Sep 2019 - Present*

- Assist students with problem-solving, debugging, and testing code
- Grade and provide constructive feedback for assignments written in C and Assembly
- Develop Bash and Python scripts used in future assignments

PROJECTS

Password Manager   *Feb 2020 - May 2020*

- Used Qt C++ to create a password manager with an auditory mechanism for password strength feedback
- Optimized algorithm for substring checking of entered passwords against popular password dictionaries
- Implemented integrity-checking during the decryption of the password database

A* Algorithm Visualization   *Nov 2019 - Dec 2019*

- Used Python to create a cell-based step-by-step visualization of the A* Algorithm
- Collaborated with group members to implement drawable obstacles and run/clear buttons

PotLuck   *Sep 2019 - Dec 2019*

- Used Flutter, a Node.js backend, a Firestore NoSQL database, and a JSON-based REST API to create a social ingredient-tracking recipe search app
- Coordinated the Agile development tasks of the team throughout the semester
- Designed an application architecture that left room for redesign, scalability, and future additions