ALEX LIN

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EDUCATION

Bachelor of Computer Science w/ Psychology Minor, University of California San Diego Expected 2022 Cumulative GPA: 3.85

COURSEWORK

- **CSE100 Advanced Data Structures** Use and implementation of data structures like (un)balanced trees, graphs, priority queues, and hash tables. Also, memory management, pointers, recursion.
- **CSE101 Design/Analysis of Algorithms** Design and analysis of efficient algorithms such as sorting, searching, pattern matching, and graph and network algorithms. Measuring complexity of algorithms, time and storage. NP-complete problems.
- **CSE132A Database System Principles** Data modeling, relational databases, query languages, optimization, dependencies, schema design, and concurrency control. Exposure to one or several commercial database systems.

TECHNICAL SKILLS

Programming Languages Web Technologies	Python, Java, C++, JavaScript REST, HTML5, CSS, Node.js, Express.js
Data Management	MongoDB
Other	PowerBi, Git/GitHub, Agile

EXPERIENCE

Software Engineer, Intern Toyota Financial Services - Information Digital Systems

Frisco, TX

- Developed Python scripts to automate Vulnerability Management reports by interacting with the Qualys API.
- Saved over 20 hours of labor per month by automating security reports through PowerBi, interacting with the Crowdstrike REST API, and pulling data from ServiceNow.
- Developed a framework for parsing reports and storing data in a MongoDB database.
- <u>Utilized:</u> Python, PowerBi, MongoDB, Git/GitHub, REST API, Linux, Crowdstrike, Qualys, Agile

Research Assistant William Pensyl Lab

Feb 2020 - June 2020 Boston, MA

Jun 2020 - Sept 2020

- Developed Python scripts to allow serial communication between a Raspberry Pi and a MaxMSP executable.
- Communicated expectations and development progress remotely from CA to Boston, MA.
- Scripts were used in an interactive art display for the finals of Arte Laguna in Venice.
- <u>Utilized:</u> Python, Linux, Git/GitHub, Raspberry Pi

PROJECTS

Poe Flipper Website - poe-flipper.herokuapp.com

- Developed a website using Node.js and Express that gives users information on the best items to buy/sell in the online ARPG Path of Exile.
- Utilized Express.js to handle backend routing, external API requests, and pricing calculations before displaying data using Embedded Javascript Templates (EJS). Prices are automatically updated by pulling data from an external database via poe.ninja.
- Created a landing page and pricing table using HTML, CSS, and EJS.
- <u>Utilized:</u> Javascript, HTML, CSS, Node.js, Express.js, EJS