David Xiu

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SKILL SET

- **Languages:** C/C++, Python, Java, MIPS Assembly, Swift / SwiftUI
- **Developer Tools:** VS Code, Pycharm, Visual Studios, XCode, Alteryx, Tableau
- **Technologies / Frameworks:** Linux, Git, Flask, AWS
- **Coursework:**
  - Computer Architecture / Operating Systems   Discrete Math
  - Design and Analysis of Algorithms   Data Structure Implementations and Analysis
  - Data Mining and Machine Learning   Programming in C/C++ and Python

EXPERIENCE

- **Fortinet**   Sunnyvale, CA
  Software Development Intern   June 2022 - September 2022
  - Worked closely on a team with Senior IOS developers and Designers to develop an IOS application using MVC design patterns and SwiftUI.
  - Created 15+ UI views to streamline IOS to Fortinet product connectivity, reducing development time by 2 weeks.
  - Successfully utilized Swift frameworks to establish a secure Bluetooth connection, and transfer and receive data from Fortinet products.
- **Undergraduate Teaching Assistant - Data Structures & Algorithms**   Irvine, CA
  Teaching Assistant / Tutor   September 2022 - Present
  - Engaged with over 300 undergraduate students during lecture and lab help hours to ensure proper understanding of algorithm analysis and data structures.
  - Organized test reviews for 100 students to further support the students before exams.

PROJECTS

- **Astro Checker (***VenusHacks 2022 - Best NLP Hack Winner)*
  - Fixed issues in speech to text transcriptions by filling in gaps created by audio artifacts.
  - Developed a responsive website with python backend frameworks such as Flask and HTML/CSS for frontend.
- **Search Engine**
  - Designed and implemented a search engine from scratch using Python.
  - Crawled and indexed over 100,000 web pages from a specific domain, and applied NLP techniques such as stop word removal and lemmatization to preprocess the raw text.
  - Implemented cosine similarity scoring and TF-IDF scores to generate ranked search results for the user.
  - Optimized the search engine performance by implementing various heuristics such as word position indexing and anchor word indexing.
- **Online Cloud Storage Application**
  - Designed an application in C which allows clients to connect to a server and users are then able to upload and download files from the online cloud storage.
  - Utilized TCP Sockets to form connections between clients and servers.
  - Integrated multithreading to allow for multiple client connections at once.

EDUCATION

- **University of California - Irvine, Irvine, California (2020 - Present)**
  - *Pursuing a Bachelor's Degree In Computer Science*
  - *GPA 3.78 / 4.0*
- **Dougherty Valley High School, San Ramon, California (2016 - 2020)**
  - *High School Diploma:* June 2020