Xinchen Zhang

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EDUCATION

University of California, Irvine   Dec 2021

Bachelor of Science. Major: Computer Science, Informatics. GPA: 3.6, Multiple Dean's Honor List Awards.

COURSEWORK

Calculus Basics; Data Structures; Discrete Mathematics; Probabilities and Statistics;
Computer Systems & Organizations; Linux Programming; Computer Networks; Artificial Intelligence.

SKILLS

Programming Languages
- Python, C++, C, Java, HTML5, JavaScript, VB for Excel, SQL

Software
- Microsoft Excel, Oracle VM Virtual Box, VMware, Vim, Putty, Git, Fiddler, Wireshark, GNS3

Operating Systems/Programming Environment
- Windows (XP, 7, 10), Linux (Ubuntu, CentOS)

Language
- English (Proficient), Chinese (Native)

PROJECTS

Python Project: UCI RegChecker   Summer 2019
- A website that checks the availability of the UCI courses that users register with and sends notification emails when a course opens. It was developed using Python Flask and web scraping techniques, and the website itself was built using Bootstrap.

Add-on Features and Modifications Based On MIT's XV6 Operating System   Fall 2020
- Using the XV6 source code as a skeleton, a new system call was implemented to protect a region of memory that contains a specified virtual address and has a specified size. Once the user-level program calls the system call interface, the memory address inputted by the user would become read-only.
- Implemented POSIX Threads and the Spinlock and Mutex synchronization mechanisms on XV6. Thread creation, join, and exit were implemented as system calls.

C++ Project: Spell Checker and Suggestion Generator   Winter 2019
- Implemented the underlying AVL Tree and Hash Table for a spell checker to load large files. Both data structures were implemented without C++ library containers and achieved best time/space complexity.

AI Projects: Othello AI and Checker AI   Winter 2019 & Fall 2020
- With the MVC-structured implementation of the games, the alpha-beta pruning algorithm was used to select the optimal moves on different stages. Researches were performed heavily to optimize the heuristic functions of each game.

EXPERIENCE

Tutoring for University's Computer Science Course   Winter 2020
- Worked with the professor and TA to teach students new programming & general computer science concepts and guided them through problems they encountered.
- Received massively positive feedbacks and appreciations from the students and gained a high appraisal from the professor.

Chinese Union in Computer Science; University of California, Irvine   Fall 2018-Present
Contributing Member
- Wrote series of Python tips for members of the society and obtained numerous positive feedbacks.
- Participated in various events and focused on leadership training.