Aaron Chen

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WORK EXPERIENCE

Lockheed Martin Space / Software Engineer Intern | Sunnyvale, CA   June 2021 - Present
- Develop **python** scripts to test internal database commands.
- Integrate testing suite into a CI/CD pipeline.
- Participate in daily **scrum** meetings with a team of 8 to discuss progress and roadblocks.

L3Harris Technologies / Software Engineer Intern | Irvine, CA   July 2020 - June 2021
- Work on a **GPS Receiver** tool in **C#** under the Navigation System department.
- Integrate a **Jenkins** pipeline that generates an **HTML** report from a **SQL** Database.
- Investigate and fix bugs under a **large code base**.
- Participate in weekly **meetings** with a team of 4 to discuss progress and roadblocks.

PROJECTS

Pintos / System Design Project   March 2020
- Implemented **thread** management in a simple Operating System.
- Wrote a **Priority Scheduler** that handled priority donation and multiple donation.
- Enabled concurrency by utilizing **mutexes** and **semaphores**.
- Worked closely with context switching and timer interrupts.

Simple Shell / System Design Project   November 2019
- Developed a simple shell in **C** that supports **Unix** commands, **piping**, and **redirection**.
- Supported the execution of both background and foreground processes.
- Handled the termination of background processes by installing custom **signal** handlers.
- Prevented race conditions by **blocking** particular signals.

Dynamic Memory Allocator / System Design Project   October 2019
- Created an **explicit** free list allocator in **C** with **first-fit** placement.
- Implemented the functions **malloc**, **free**, and **realloc** from scratch.
- **Aligned** memory blocks by adding necessary **padding** for speed optimization.
- Used a **doubly linked list** to manage unallocated memory.
- Performed **coalescing** on free blocks to satisfy large malloc requests.

ACTIVITIES

ICS Student Council / Programmer | Irvine, CA   January 2020 - Present
- Lead a team in the **Projects Committee** to work on a course catalogue **web** application.
- Create and delegate tasks to members during weekly meetings.

EDUCATION

School: University of California, Irvine   Graduation Year: 2021
Major: Computer Science   GPA: 3.959
Coursework: Data Structure and Algorithms, Python and C++ Programming, System Design, Principles of Operating System, Computer Networks, Introduction to Data Management, Software Engineering, Linear Algebra, Statistics, and Discrete Math.

SKILLS

Programming Languages: Python, Java, C++, C#, C, JavaScript, SQL, HTML, CSS
Technologies: Github, Jira, Express, React.js, Jenkins, Docker, AWS, Nginx