Chun Hin Chan

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EDUCATIONS

University of California, Davis — Expected Graduation: **Jun 2020**
Bachelor of Science, Computer Science
GPA: 3.581 / 4.000 (Major GPA: 3.743 / 4.000)

SKILLS

Programming languages: C, C++, Java, Python3, MATLAB, HTML5, CSS, JavaScript, Swift
Fluent in English, Cantonese, and Mandarin. Proficient in Japanese.

PROJECTS

Personal Website | Language: HTML5, CSS, JavaScript — Dec 2018 – Current
Objective: Create online portfolio and practice web development skills
- Compiled using React.js and hosted via GitHub Pages
- Designed and implemented several iterations of the website
- Positioned elements using CSS grid and flexbox

Space Invader | Language: Python3 — Sep 2019
Objective: Learn Python through a visually rewarding way
- Developed using the PyGame module
- Completed within one week of development time (without audio and menus)

Lango, the Flashcard Web App | Web Development | Language: HTML5, CSS, JavaScript — May 2019
Objective: Develop a web app that allows users to get translations of unfamiliar terms, create flashcards, and review them
- Developed server code using Express (Node.js framework) and SQLite3
- Used Google's OAuth2 API 2.0 for user logins and Cloud Translation API for translations
- Implemented graphic designer Jamie Oka's design for the website using React.js

Image Stitcher | Computer Vision | Language: MATLAB — Apr 2019
Objective: Combine two overlapping images using user annotated matching features coordinates
- Applied inverse wrapping to ensure a hole-less and preserving result
- Lowered complexity by converting image array into one-dimensional array before computation

Seam Carving | Computer Vision | Language: MATLAB — Mar 2019
Objective: Implement the content-aware image resizing algorithm, Seam Carving
- Analyzed the strength and weakness of Seam Carving by comparing results with results of standard image resizing method
- Discussed how some of the weakness (ex. faces) can be avoided

File System API | Operating System | Language: C Feb 2019

Objective: Implement a simple file system that is based on file allocation table and supports up to 128 files in a single root directory

- Worked on a team of 2
- Simulated a real hard drive by using a binary file that is logically split into blocks
- Maintained information in superblock, FAT, and root directory in each operation

User Level Thread Library | Operating System | Language: C Jan 2019

Objective: Learn underlying concepts of multi-threading by recreating functions from the POSIX Threads API

- Implemented a semaphore API and used it to prevent race conditions as a group of 2
- Minimize resource consumption using copy-on-write approach to
- Compared run time of each task with and without preemption

Simple Shell | Operating System | Language: C Jan 2019

Objective: Study how the UNIX shell behave under the hood

- Create sub-processes to run users' command with fork()
- Implemented redirection (< and >) and pipeline (|)

EXPERIENCE

Learning Center Tutor Feb 2019 – Jun 2019

Woodland Joint Unified School District – Woodland Senior High School

- Worked 16 hours per week while maintaining full academic schedule
- Maintained and organized students' data in a systematic fashion
- Collaborated with teachers and fellow tutors to improve students' academic performance