

SAMUEL HWANG

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WORK EXPERIENCE

Applied Medical Resources

Software Technician I

Rancho Santa Margarita, CA

October 2017 - Present

- Invited back to help develop the Voyant medical device software and internal PC applications during the school year
- Developing a burn-in test fixture to stress test the medical device for potential faults

Software Development Intern

June 2017 - September 2017

- Maintained and debugged the Voyant medical device software using PTC Integrity as version control
- Expanded a script parsing compiler in C++ that increases control flow complexity with if-else statements
- Built a wrapper library in C++/CLI for cross-language communication to the SAP client in C# to store and call device scripts
- Created scripts using AutoIT to automate user inputs and interact with Windows GUI for automated overnight testing

UCR Department of Psychology

Research Software Developer

Riverside, CA

May 2017 - Present

- Designing the UI (main menu, option configurations, and photo album) for a mobile flash memory game on Unity
- Developing a RESTful API using Django and AWS to collect and analyze user data from the mobile games
- Expanding the website, <https://mindtapp.com>, to support log-in and survey features to store in our database system

UCR Department of Sociology

Research Software Developer

Riverside, CA

April 2017 - June 2017

- Developed social exchange experiments with varied complexity using C++ and the z-Tree application
- Constructed a responsive UI and created corresponding graphics to make experiments easy to understand
- Programming background expedited the team's development process by 400%, creating four different experiments in 10 weeks

PROJECTS

J.Crew Sales Browser

- Developed a program in Python that web-scrapes merchandise on the J. Crew website and inserts them into a table in MySQL
- The program also plots this information on Plot.ly using their API to show the user what items have the best deals

Unix Shell

- Recreated the Unix Shell in C++ to emulate a normal terminal and used `execvp` to call commands
- Wrote the parsing function to interpret complex command combinations with boolean clauses and parentheses

LCD Racer Game

- Programmed an ATMEGA1284 to control peripherals and simulate a racing video game for up to two players
- Calculated points by time 'Player 1' lives and included a CPU or 'Player Two' option to shoot projectiles at 'Player One'

LEADERSHIP

Theta Tau, Co-Ed Professional Engineering Fraternity

Corresponding Secretary (2016-2017) | Webmaster (2017-Present)

Riverside, CA

2015-Present

- Assisted Executive Board to maintain chapter relations with over 80 alumni and the 11 surrounding Theta Tau chapters
- Managed the Community Service Chair to help plan three events per quarter to serve our college and community
- Coordinated our chapter's Western Regional Conference with a budget of over \$10,000 for speakers, catering, and activities
- Maintaining our chapter's website as Webmaster: <http://www.thetatauucr.com>

TECHNICAL SKILLS

Programming: C++ (Primary), Python, C, C#, x86 Assembly, Shell, Batch, SQL, HTML/CSS, Javascript
Software & Tools: Git, PTC Integrity, Visual Studio, SAP, iAR Embedded Workbench, Unity 5, Xcode, \LaTeX
Spoken Language: English (Native), Mandarin (Limited Working Proficiency)

EDUCATION

University of California, Riverside

Bachelor of Science in Computer Science

Expected Graduation: March 2018

- Highlander's Excellence Scholarship & Dean's List