

SAMUEL HWANG

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WORK EXPERIENCE

Applied Medical Resources

Software Technician I

Rancho Santa Margarita, CA

October 2017 - Present

- Working in a highly regulated R&D workspace with SOP training, documentation updates, and code reviews for all team members
- Creating scripts using AutoIT and Batch to automate user inputs and interact with Windows GUI for build loading and script testing

Software Development Intern

June 2017 - September 2017

- Maintained and debugged the codebase using PTC Integrity as version control and Jenkins as a continuous integration tool
- Expanded a compiler in C++ to parse if-else statements to increase control flow complexity in our custom scripts
- Built a C++/CLI wrapper library for cross-language communication from a C++ program to the SAP API call in C# to store and retrieve device scripts, expedite production time, and eliminate human error

UCR Department of Psychology

Research Software Developer

Riverside, CA

May 2017 - Present

- Working with a team of developers to create a mobile game app along with a website to implement research on Leadership Theory
- Designing the UI (main menu, option configurations, and photo album) for a 'flash memory card' game in Unity
- Developing a RESTful API using Django and AWS to collect and analyze users' play time and score from games
- Expanding the website, <https://mindtapp.com>, to support surveys and managing a PostgreSQL database to store the results

UCR Department of Sociology

Research Software Developer

Riverside, CA

April 2017 - June 2017

- Developed social exchange experiments with unique sets of users and rules for each simulation using C++ and the z-Tree application
- Constructed a responsive UI by dynamically calculating the results of exchanges every turn
- Designed corresponding graphics which helped users understand their relationship with other users
- Programming background expedited the team's development process by 400%, creating four different experiments in 10 weeks

PROJECTS

8-Puzzle Solver

- Implemented a console application in C++ and utilized A* Search to find the solution to an unsolved 8-puzzle
- Compares the run-time of different heuristics used such as Uniform Cost and Manhattan Distance to identify the most optimal steps

J.Crew Sales Browser

- Developed a program in Python that web-scrapes merchandise on the J. Crew website and stores them into a MySQL database
- Utilized the Plot.ly API to graph the relationship between original and sale price to show what items have the best deals

LCD Asteroids

- Created a survival game for two players where player 1 avoided asteroids and player 2 shot projectiles
- Programmed an ATMEGA1284 to control peripherals (LCD screen, buttons, LED lights) to simulate and control the racing game

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
- 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, SQL, HTML/CSS, Javascript

Software & Tools: Git, PTC Integrity, Visual Studio, Unity 5, Xcode, L^AT_EX

EDUCATION

University of California, Riverside

Bachelor of Science in Computer Science

Expected Graduation: March 2018

- Highlander's Excellence Scholarship & Dean's List