

# SAMUEL HWANG

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## WORK EXPERIENCE

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### IBM Corp.

*Software Developer*

Tucson, AZ

June 2018 - Present

- Working with the DFSMS support team to analyze and debug clients' problems with the IBM mainframe

### Applied Medical Resources

*Software Technician I*

Rancho Santa Margarita, CA

October 2017 - December 2017

- Worked in a highly regulated R&D workspace with SOP training, documentation updates, and code reviews for all team members
- Collaborated with members of the team to assist the development of their projects by developing new features or internal tools
- Created 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 platform
- Expanded a compiler in C++ to parse if-else statements to increase control flow complexity in custom test scripts
- Built a C++/CLI wrapper library for cross-language communication between C++ and C# to call the SAP API to store and retrieve device scripts, expedite production time, and eliminate human error

### UCR Department of Psychology

*Research Software Developer*

Riverside, CA

May 2017 - December 2017

- Worked with a team of developers to create a mobile game app and website to implement research on Leadership Theory
- Acted as a technical liaison between the psychology graduate students and the development team to ensure clear communication
- Designed the UI (main menu, option configurations, and photo album) for a 'flash memory card' game in Unity

### 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 exchange results and designed graphics for users to visualize the experiment
- Programming background expedited the team's development process by 400%, creating four different experiments in 10 weeks

## PROJECTS

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### Fridge.io

- Collaborated with a team of five to design and develop a Smart Fridge product by using a Raspberry Pi to emulate the fridge and an Android app to interact with the Raspberry Pi
- Utilized the SQLite database for quick, offline data fetching, storage, and transfer between the Raspberry Pi and the Android app
- Created complimentary features for user data such as product views, bluetooth sync, and expiration date notifications

### 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

## TECHNICAL SKILLS

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**Programming:** (Primary) C++; (Familiar) Python, C, Java, SQL

**Software & Tools:** Git, PTC Integrity, Visual Studio, Unity 5, Android Studio

## EDUCATION

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### University of California, Riverside

*Bachelor of Science in Computer Science*

March 2018

- *Relevant Coursework:* Software Engineering (Senior Design), Data Structures & Algorithms, Artificial Intelligence, Embedded Systems, Database Management Systems, Design and Architecture of Computer Systems, Design of Operating Systems, Concurrent Programming & Parallel Systems, Compiler Design, Technical Communication
- *Awards & Honors:* Highlander's Excellence Scholarship & Dean's List Fall 2014
- *Organizations:* Theta Tau - Co-Ed Professional Engineering Fraternity, ACM - Association for Computing Machinery