# SAMUEL HWANG

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## TECHNICAL STRENGTHS

C, C++, C#, Python, MATLAB, HTML/CSS, Assembly Languages:

**Software & Tools:** Git, Vim, Visual Studio, Xamarin Studio, MySQL, Atmel Studio, Photoshop CC, LATEX

#### WORK EXPERIENCE

## **UCR Department of Sociology**

2017

Software Developer

Riverside, CA

- · Developing software in C++ with the z-Tree platform to conduct behavioral experiments for UCR's Sociology Department
- · Constructing a user-friendly interface to make experiments smooth and simple for all participants
- · Coordinating with my team to study economic scenarios and create software to cater to these ideas

**MA Labs** 2014 Product Distributor City of Industry, CA

- · Assisted a distribution company to handle the processing and packaging of computer hardware
- · Organized hardware products to ship and invoices for coworkers depending on item, quantity, and priority

## **PROJECTS**

### J.Crew Factory Sales Browser

https://github.com/samhwangg/J.Crew-Factory-Sales-Browser

Data Management

- · Developed a program in Python that web-scrapes information about products on the J.Crew Factory website such as the name, original price, and sales price and inserts them into a table in MySQL
- · The program also plots this information on Plot.ly using their API showing the user what items have the best deals

**Unix Shell** 

https://github.com/samhwangg/rshell

Software Construction

- · Imitated a custom Bash terminal with C++ to navigate through files and directories with the same commands such as ls, cd, etc
- · Terminal could also handle more complex commands with parenthesis and boolean clauses in addition to rejecting incorrect inputs

# 8-Puzzle Solver

https://github.com/samhwangg/8-Puzzle-Solver

Artificial Intelligence

- · Implemented A\* Search in C++ to find the solution to an unsolved 8-puzzle inputted by the user.
- · Compares the run-time of different heuristics used such as Uniform Cost heuristic and Manhattan Distance heuristic.

#### **LCD Racer Game**

https://github.com/samhwangg/LCD-Racer

Embedded Systems

- · Programmed an ATMEGA1284 with an LCD screen, buttons, and LED lights to simulate a racing video game for two players.
- · Player 1 avoids objects that scroll through the screen and Player 2 shoots projectiles to try and hit Player 1.

## **EXTRA-CURRICULAR**

## Theta Tau, Co-Ed Professional Engineering Fraternity

2015-Present

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

Riverside, CA

- · Assisted Executive Board to maintain chapter relations with alumni and surrounding Theta Tau chapters
- · Head coordinator of the Western Regional Conference hosted at UCR on October 2016
- · Managed a committee of 15 people to plan an all-day event with a budget of over \$10,000
- · Maintaining our chapter's website as Webmaster: http://www.thetatauucr.com

**Eagle Scout** 2006 - 2014 Troop 730 Diamond Bar, CA

· Developed leadership skills as a Boy Scout for eight years and earned the rank of Eagle Scout

## **EDUCATION**

# University of California, Riverside

B.S. in Computer Science

Expected Graduation: June 2018

· Received Highlander's Excellence Scholarship to UCR