ZIYI HUANG

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Address: 4041 Roosevelt Way NE, Seattle, WA 98105

Education

University of Washington (UW), Seattle WA
B.S. in Electrical & Computer Engineering, Dean's list 4 quarters, GPA: 3.55 Expected June 2019
Coursework: Database System, Computer Tools, Computer Architecture, AI, Algorithm

Skills

- **Languages** Python, Java, JavaScript, HTML, CSS, SQL, Linux/Bash Script, C/C++, Verilog, MATLAB, Assembly
- **Services** AWS Spark, AWS EC2, MS Azure, Zotero, MS Office Suite, Igor Pro 8, IAR Embedded Workbench

Relevant Experience

RESEARCHER – Project DietSkan – Sensor, Energy, and Automation Laboratory - UW - Sep 2018-Present

- Developing a smart food scan app that recognizes foods from photos and calculates the calories, aiming to improve the performance of insulin prescription for diabetes patients.
- Trained our model with ECUSTFD dataset on Tensorflow. Constructing a database dedicated to Harbor View Medical Center.
- Collaborating with engineers and technical writers to prepare professional manuscripts.
- Enabled effective teamwork by organizing Gantt charts and weekly teleconferences.

GRADER – Introduction to AI, UW - Oct 2018-Present

- Self-taught Python and developed course projects prior to grading assignment submissions.
- Developed a Python script to automate validating and executing students' submissions.
- Wrote a script to generate random player pairs for a Mancala AI tournament. Used Google APIs to update scores on a spreadsheet.
- Developed an AI player for the game Mancala using mini-max search with Alpha-beta pruning. Experimented different heuristics combinations and depth limits to improve its performance.

TI LCD GAME "SHOUTING SQUARE" - Introduction to Embedded System, UW - Jun-Aug 2018

- Assembled circuits and implemented a driver application in C to prototype a portable sound-controlled LCD game using a TI microcontroller with 3 electrical engineers. The game allowed users to shout to make a square jump and dodge obstacles.
- Programmed the Bluetooth to allow the users to wirelessly customize the game from an Android app.
- Processed data from the microphone using ADC to build a mapping between volume and jump height.
- Designed and developed algorithms for object generation, movements, and collision detection.
- Integrated team codes into a real-time application using freeRTOS APIs.
- Delivered a demo video, a written report and a verbal presentation to promote our product to the class

JDBC APPLICATION "FLIGHTS" - Introduction to Database System, UW - Sep-Dec 2017

- Developed a database query program for a flight reservation app in JAVA using JDBC, providing methods for logging in, displaying, adding, and removing reservations.
- Programmed queries in SQL. Designed a relational database and maintained it in MS Azure.

SPEAKER SYSTEM "SMART PARTY" – Sonos Challenge - Oct 2018

- Collaborated with 4 teammates from UI/UX design and software engineering to deliver a smart integration to Sonos' speakers following the Agile development process.
- Designed a smart party system that auto-adjusted music volumes according to the ambient noise level to maintain hearing comfortability.