OWEN YANG

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U.S. Citizen

EDUCATION

University of California Irvine **June 2020**
B.S. Degree in Computer Science and Engineering
GPA: 3.3
Awards: 2017 UCI TIPPERS Hackathon Winner, Dean's Honor List, IET Present Around the World 1st Place Regional

WORK EXPERIENCE

UCI Advanced Power and Energy Program **February 2018 – Present**
Undergraduate Researcher under Professor Scott Samuelsen

- Researched and analyzed air pollution emissions data using Python, NCL, and BenMAP
- Designed well-documented Python and Bash scripts, with mark down, to evaluate health impacts and graphically represent air pollution data for Toyota and policy makers
- Demonstrated vehicle recognition for hydrogen station monitoring using machine learning with Python, C++, and YOLO v3
- Performed data analysis with SQL on Plug-in Electric Vehicles (PEVs) to improve Smart Charging Algorithms
- Created and actively managed and documented over 20 different project repositories using Git

UCI Sustainability Resource Center **September 2017 – June 2018**
Energy Intern

- Compiled and analyzed energy data and calculated potential energy cost savings with Python and Excel libraries
- Educated over 80 UCI students on energy efficiency to initiate behavioral-related energy savings to the campus by holding workshops and presentations

RELEVANT PROJECTS

ZotBins: A Smart Zero Waste Initiative **June 2017 - Present**
Project Lead and Founder

- Developed an award-winning IoT project called ZotBins (https://zotbins.github.io), which is a real-time waste monitoring smart bin system as a Zero Waste (practice of diverting waste from landfill) Tool for communities such as UCI
- Designed a data collection management system with SQL, Python, C++, and Linux to operate sensors with Raspberry Pi's
- Constructed a user-interface and data analysis scripts using Python, HTML, CSS, and JavaScript to provide real-time feedback for facilities management
- Created electronic schematics for the smart bins; fabricated and laser-cut smart-bin hardware designs

ZotPonics: A Smart Hydroponics System **June 2019 - Present**
Software, Systems Design, Electronics

- Designed a smart and automated hydroponics system using Python, a Raspberry Pi, and a network of multiple sensors and actuators
- Created RESTFUL API's using Python Flask to communicate with SQL database
- Documented code using Git and several reports and presentations

SKILLS

- Python, C, C++, Java, and SQL
- Git, Linux, and Bash Scripting
- HTML, CSS, and JavaScript
- Microcontrollers (Raspberry Pi and Arduino)
- Microsoft Office (Excel, Word, PowerPoint)

RELEVANT COURSEWORK

Embedded Software, Software Engineering Test & Quality Assurance, Python Intermediate Programming, Computer Networks, Intro to Software Engineering, Programming in C/C++, Organization of Digital Computers, Data Structure Implementation & Analysis, Design & Analysis of Algorithms, Principles of Operating Systems