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 air pollution emissions using Python, NCL, and BenMAP to evaluate health impacts for Toyota and policy makers
- Demonstrated vehicle recognition for hydrogen station monitoring using machine learning with Python, C++, and YOLO
 v3
- Improved Smart Charging Algorithms on Plug-in Electric Vehicles (PEVs) through data analysis scripts with SQL

UCI Sustainability Resource Center

September 2017 – June 2018

Energy Intern

- Compiled energy cost savings with Python and Excel libraries
- Lead workshops to educate over 80 UCI students on energy efficiency for behavioral-related savings to the campus

RELEVANT PROJECTS

ZotPonics: A Smart Hydroponics System

June 2019 - Present

Software, Systems Design, Electronics

- Engineered a smart and automated hydroponics system using Python, the Raspberry Pi, and a network of multiple sensors and actuators
- Created RESTFful API's using Python Flask to communicate with SQL database for the front-end
- Authored several reports with documentation and delivered presentations for future project members and the general public

ZotBins: A Smart Zero Waste Initiative

June 2017 - Present

Project Lead and Founder

- Mobilized and developed an award-winning IoT project called ZotBins (https://zotbins.github.io), a real-time waste monitoring smart bin system as a Zero Waste (practice of diverting waste from landfill) Tool for communities
- 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

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

Interests

Environmental Justice, Gardening, Soccer, Robotics, and playing the Bassoon