John W. Sha

johnwsha@berkeley.edu
github.com/johnwsha
johnwsha.com

Education:

University of California, Berkeley *Expected graduation: May 2020*
B.A. Data Science (Robotics Emphasis)

Coursework: Intro to Machine Learning, Biomedical Device Engineering, Entrepreneurship Bootcamp, Intro to Artificial Intelligence, Probability, Principles of Data Science, Data Structures, Solid Mechanics, Thermodynamics

Experience:

Ooma *Sunnyvale, CA*
Software Engineering Intern *May 2019 - Present*

- Evaluated and validated vendor claims of software model and hardware acceleration performance in order to recommend platforms for further development and collaboration with Ooma
- Tested facial recognition models on CPU constrained devices, recommended 2 platforms for development
- Full-stack development of a dashboard with Docker, Flask, Bootstrap, and MongoDB for automating edge device status retrieval and ability to remotely power cycle and reserve devices for deploying tests

Goodly Labs *Berkeley, CA*
Software Developer *Jan 2019 - Present*

- Developed Chrome extension with HTML, JavaScript to overlay news article analysis with highlights and D3 visualization in order to show biases, strengths, and weaknesses for nonpartisan assessments
- Leveraged phrase matching instead of index matching to find exact points for highlighting words/phrases

Finelite *Union City, CA*
Mechanical Engineering Intern - Product Development *Jun - Aug 2018*

- Designed and prototyped luminaire bodies and installation brackets; top-down design
- Increased product family range by 3 new products, worked with QC engineers for paint quality assurance
- Decreased light fixture optical cavity by 66% and body height by 38% while meeting light output goals
- Maximized existing, shared parts between light products; created 2ft prototype fixture for demonstration

Extracurriculars:

Course Staff: Principles of Data Science (Data 100) *Berkeley, CA*
Lab Assistant *Jan - May 2019*

- Assisted in weekly lab sections, answered questions, and guided students on topics including linear regression modeling, cross-validation, pandas

UC Berkeley Formula SAE *Berkeley, CA*
Formula SAE is a student engineering group that designs, builds, and races a formula-style racecar every year.
Engine Team Lead (Prior: Member 2016-2018) *Sept 2016 - Jun 2019*

- Managed design, manufacturing, and testing of engine system (nine members, six systems within engine)
- Increased HP by 34% by optimizing engine fuel and ignition maps, acquired and analyzed data
- Maintained dynamometer and car engines, diagnosed and fixed electrical and combustion issues

Projects:

OpenCV Real-Time Webcam Face Recognition

- Used webcam input to detect faces and take still images for building a facial recognition training dataset
- Bounding boxes drawn around detected faces which are then compared to trained dataset for recognition
- Calculated processing time for comparison to other facial recognition models/libraries

Drink Dispensing Robot | bit.ly/mixabot

- Built an Arduino controlled robot that dispenses mixed drinks using a turntable and button selection UI
- Managed component selection, Arduino control, and rapid prototyping with laser cutting and hand tools

Skills:

Technologies: Python, Java, JavaScript, HTML, CSS, MATLAB, MySQL, pandas, scikit-learn, Flask, Bootstrap