John W. Sha

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Education:

University of California, Berkeley *Aug 2016 - May 2020*
B.A. Data Science (Robotics Emphasis)

Experience:

Amazon *Seattle, WA*
Software Development Engineer *Sep 2020 - Current*

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

- 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
- Evaluated and validated vendor claims of ML 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

Goodly Labs *Berkeley, CA*
Software Developer *Feb - Dec 2019*

- 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*
Engine Team Lead (Prior: Member 2016-2018) *Sep 2016 - Jun 2019*

- Managed design, manufacturing, and testing of engine system (nine members, six systems within engine)
- Increased power by 34% by optimizing engine fuel and ignition maps from acquiring and analyzing 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

Interests:

Car enthusiast (modifications, HPDE racing), mechanical keyboards, building desktop PCs, baking, cooking