Michelle Pan

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Education

University of California, Berkeley **Expected Graduation: May 2024**
B.A. Computer Science & Statistics *GPA: 4.0*
Relevant coursework: Data Structures, Multivariable Calculus, Linear Algebra & Differential Equations, Structure and Interpretation of Computer Programs

Experience

Launchpad (UC Berkeley Student Club) **Sep 2020 – Present**
Machine Learning Developer *Berkeley, CA*

- Working on Interact, a project analyzing human-object interactions in images (project site)
- Encoding visual, semantic, and spatial features with Faster R-CNN and Word2Vec
- Experimenting with CNN and GNN architectures using PyTorch and DGL (Deep Graph Library)

Coronavirus Visualization Team **Jun 2020 – Present**
Student Researcher — Xenophobia Online Project *Remote*

- Analyzing anti-Asian sentiment on Twitter resulting from the coronavirus pandemic
- Building sentiment analysis pipeline with spaCy and scikit-learn; visualizing results in R
- Studying trends and publishing results, advised by Prof. Juan Banda (Georgia State University)

Trill Project **Jun 2020 – Sept 2020**
Product Development Intern *Remote*

- Created a web app for Trill's anonymous, supportive social network with 70,000+ users
- Developed real-time messaging and friends features using ReactJS, REST APIs, and Socket.IO
- Redesigned onboarding process to increase engagement and inclusion of gender-minority users

Cupertino Robotics **Aug 2018 – Jun 2020**
Computer Vision Lead — FRC 2473 *Cupertino, CA*

- Led a team of students to develop robot computer vision algorithms (GitHub repository)
- Taught students CV topics: NumPy, OpenCV, pinhole camera models, Perspective-n-Point, etc.
- Created 3D pose estimation algorithms to calculate robot position for autonomous trajectory driving
- Streamlined data collection, batch testing, and error calculation pipelines in Python

NASA Ames Research Center **Jun 2019 – Aug 2019**
Software Development Intern — Sherlock Data Warehouse *Mountain View, CA*

- Created an interactive inventory dashboard for 200+ Linux systems with Django and SQL
- Automated air traffic data transfers from the FAA website with Selenium

Projects

Milk & Cookies **Jul 2020 – Oct 2020**

- Created a Chrome extension to make baking more accessible by suggesting ingredient alternatives on recipe websites for those with food allergies or dietary restrictions
- Designed user interface in Figma and implemented with ReactJS; integrated Chrome API backend
- Won Best Cooking Hack at HobbyHacks 2020 (Devpost link)

Skills

Programming Languages: Python, Java, HTML/CSS/JavaScript, SQL, R
Libraries & Tools: OpenCV, Scikit-learn, PyTorch, NumPy, Pandas, ReactJS, REST API
Other: Git, Linux, Figma, Adobe Creative Suite