

Lena Ray

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EDUCATION

UC DAVIS

B.S. in Computer

Science and Engineering

Sept 2021 - Expected

June 2025

COURSES

- Machine Learning
- Data Structures
- Algorithm Design
- Operating Systems
- Embedded Systems
- iOS Development
- Computer Networks
- Computer Architecture
- Discrete Math for CS
- Object Oriented Programming

SKILLS

- Python
- C/C++
- Java
- JavaScript
- React
- Swift
- SQL
- Flask
- HTML & CSS
- AWS
- Full-stack Web Dev
- Machine Learning (Image Classification)
- API Test Automation (REST APIs)

AWARDS

- AT&T Believes Scholarship Awardee (via Udacity - Full Stack Web Development Nanodegree) (2021)
- CITRIS EDGE in STEM Scholarship Awardee (2021)
- Dean's Honor List
- Bay Area Chevron Design Challenge (4th place regionals, 2019)

EXPERIENCE

Undergraduate Researcher | Mialab

March 2024 - Present

- building an augmented reality device to assist individuals with autism in facilitating social communication
- formulating plan for preliminary testing of prototype in a human subject study
- collaborating with autism experts and doctors for feedback

Software Engineer Intern | Paramount+

June 2023 - Nov 2023 | Remote

- performed end-to-end testing for REST APIs with Java for all mobile and web devices subscribed to Paramount+ in US and international regions
- improved homepage functionality and increased test coverage for streaming watchlists e.g. adding to a list, persisting changes, retrieving user preferences
- created API security tests for broken authentication and SQL injection scenarios
- set up CI/CD pipelines with Jenkins for test automation

CodeLab Developer | Volt Client Team

Oct 2023 - Present | Davis, CA

- created a React web app with graphical displays that highlight trends in user cost data and provide summary reports, to be integrated with existing Volt products
- collected data with a FastAPI server using Python and SQL
- built a React Native mobile app to display marketing messages and text history
- configured data storage with Firebase as a SQL database

Computer Science Tutor | CS @ UC Davis

Mar 2022 - Sep 2023 | Remote

- tutored peers and held final review sessions for CS major classes (Data Structures, Object-Oriented Programming, C Programming, Discrete Math)

PROJECTS

TenaCity MOBILE: SWIFT

Jan 2024 - Present

- created an iOS health habit-tracker app to reach user-specified goals
- integrated Apple Health API to retrieve live health data (i.e. daily steps, calories)
- incentivized daily use with leaderboard and city-themed graphics
- implemented login with Google Authentication API & Firebase to save progress

AutoVision MACHINE LEARNING: PYTHON (PYTORCH)

April 2023 - June 2023

- created a model for automatic recognition of car make and model
- used EfficientNet to train the model on a dataset of 16,000 images of cars
- applied grid search for hyperparameter optimization
- achieved 94% accuracy

StockHub WEB DEV: SQL, FLASK, HTML / CSS, JAVASCRIPT

March 2023 - Present

- integrated the Alpha Vantage API to allow users to search by company name or ticker symbol for realtime stock price views
- implemented a news sidebar powered by Google RSS News Feed corresponding to each ticker, so users can correlate public interactions to value oscillations