

Advay Ratan

Passionate about finding efficient and reliable solutions to complex problems

(628) 255-0206 advayratan@berkeley.edu advayratan.com linkedin.com/in/advay-ratan/ github.com/ARtheboss/

EDUCATION

University of California, Berkeley

B.S. in Electrical Engineering and Computer Science

Relevant Coursework: Algorithms & Datastructures (Java), Computer Architecture (C), Databases, Graphics (C++), Machine Learning

Aug 2022 - May 2026

Berkeley, CA

GPA: 4.0

SKILLS

Languages: Python, Java, C, C++, Javascript, PHP, MATLAB; **Web Development:** HTML/CSS, JQuery, React, Webpack, Django, Ruby on Rails; **App Development:** Flutter/Dart; **Game Development:** HTML5 Canvas, Unity; **Competitive Programming:** USACO Gold; **Software Engineering:** Git, Jira, GitHub, GitLab;

HIGHLIGHTED PROJECTS & EXPERIENCE

Project Intern | Fractal Analytics

June 2023 - Present

Bengaluru, India

- Working with cloud and data technology team to develop a Python machine learning data classifier to auto-tag data headers and identify data types.
- Creating an API to expose classifier endpoints for 5+ use cases within the organization.

Software Engineering Intern | GlobeSisters

Sep 2022 - Jan 2023

Berkeley, CA

- Developed from early stages to app launch on Google Play Store and App Store.
- Translated UI/UX from Figma to frontend Flutter/Dart user interface.
- Handled Firebase backend, including Cloud Firestore, Firestore Rules, Firebase Functions.
- Led creation of CI pipelines on GitLab to set up unit, widget and integration testing to drastically improve code reliability.

Data Engineering Intern | Nugit

May 2021 - Jul 2021

Singapore

- Led creation of a new ETL data pipeline optimizing core tech for all clients using Apache Airflow/Python.
- Wrote integrations for various APIs such as GoogleAdwords, Facebooks Ads, Twitter Ads and utilized MongoDB for transformed data storage.
- Followed AGILE framework/Jira roadmaps to collaborate effectively with team of twelve engineers and ship cohesive products.

Creator | Time Trial Racing

Oct 2017 - Present

- Independently published game to Chrome Webstore (6000+ users) and developed car physics with Javascript, rendered with HTML5. Currently in 7th major version with 3000+ lines of code.
- Managing Ruby on Rails web server hosted via Heroku to handle thousands of requests a day.
- Worked with Node and Webpack to optimize code performance, reliability and ease-of-development.

CS 61A Academic Intern | UC Berkeley EECS

Jan 2023 - May 2023

Berkeley, CA

- Weekly Office Hour assistant for introductory Python programming course with ~1500 students.

EECS 16A Junior Mentor | Computer Science Mentors

Jan 2023 - May 2023

Berkeley, CA

- Ran weekly 1.5 hour mini-lecture/tutoring sessions on circuits and linear algebra for three students.

Delivery Route Optimization

Apr 2023

- Created tool to solving for the optimized multi-vehicle delivery given a city plan and order list.
- Employed Java to implement a modified Dijkstra's with a greedy approach to increase efficiency.

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

Vehicle Dynamics Member | Berkeley Formula Racing

Oct 2022 - Present

Berkeley, CA

- Exploring the intersection of two passion areas, physics and cars, with the Vehicle Dynamics subteam for UC Berkeley's internal combustion Formula SAE team.
- In charge of suspension kinematics design, static and dynamic car testing, and dictating overall design direction of the car to maximize performance against 120+ universities at yearly competition.

Unit 1 Representative | Berkeley Residence Hall Assembly

Aug 2022 - May 2023

- Awarded Finance Committee Member of the year and won school of the year against 60+ RHAs.
- Organized general activities for 1600 residents in residence hall, managed a \$100k+ budget.
- Liaised for Residence Hall Assembly, collated and represented resident's voice to initiate positive change in my residence hall.