ANMOL RATTAN SINGH SANDHU

anmol.dev | +1-510-999-2365 | asandhu@olin.edu

EDUCATION

Bachelor of Science in Computer Science, Olin College of Engineering

Aug 2021 – May 2025

 CGPA: 3.85 / 4.00 Coursework: Data Structures, Advanced Algorithms, Software Systems, Computational Robotics, Neurotechnology and Machine Learning, Data Science, Discrete Math, Collaborative Design, Computer Architecture, Longer Term Software Development

SKILLS

- Python, Go, C, C++, C#, JavaScript, SQL, Java, Dart, R, Bash
- Git, Unity, Linux, Firebase, Ansible, Docker, ROS, MATLAB, React.js, AWS, Azure

EXPERIENCE

Intern, Modular Open-Source Identification Platform (MOSIP)

Jan 2024 – May 2024

- Working on INJI, a global digital identity verification module.
- MOSIP is an open-source version of the <u>Aadhaar Technology Stack</u>, which has revolutionized the delivery of social services and retail payments in India.

Full Stack Developer Intern, Community Knights

Jun 2023 – Present

- Developing a ride-sharing services platform with a focus on accessibility and inclusivity for individuals with disabilities in collaboration with the non-profit organization Community Knights.
- Worked on an admin dashboard over the summer, enabling administrators to efficiently match ride requests with volunteer drivers.
- Utilized **ReactJS**, **Firebase**, and **Ant Design** to create a full-stack web application. Added **CRUD** capabilities using the **Firestore NoSQL** database. Integrated Google Maps for mapping, navigation, and location search functionalities.
- Conducted **UX design** interviews with Community Knights' administrators to iteratively improve the usability, functionality, and overall experience of the dashboard.

Researcher, Affordable Design and Entrepreneurship, Olin College

Jun – Aug 2023

- Building data tools to assist public defenders mitigate possible convictions due to incidents of unlawful traffic stops resulting from racial profiling.
- Automated the generation of statistical PDF reports of traffic stop records using **quarto**. These reports will be added to the new police accountability database of the Strategic Litigation Unit in the Committee for Public Counsel (CPCS).
- Utilized GitHub pull requests to implement streamlined code integration and review processes.
- Conducted data analysis in Python using frameworks such as pandas, numpy, and Jupyter.
- Built extensive testing frameworks using **pytest** for sensitive data cleaning functions used in parsing thousands of traffic stop records.

Researcher, Olin College Crowdsourcing and Machine Learning Lab

Feb 2022 – *May* 2023

- Created pipeline to benchmark image matching algorithms on data collected from 50+ co-designers for the Clew app, which is a path retracing app for blind and visually impaired users.
- Added **Protobuf** support for data logging using **Firebase** for the Clew **iOS** application.
- Used **Python** to develop LiDAR based infrastructure to benchmark various algorithms including the SuperGlue neural network and **OpenCV** image matching algorithms.
- Currently working on a Visual Simultaneous Localization and Mapping (**SLAM**) system to allow continuous realignment during navigation.

Coding Team Lead, Public Interest Technologies, Olin College

Dec 2021 – Dec 2022

- Developing 2D exploration role-playing game to teach young kids about gender identities in collaboration with the non-profit Out Maine.
- Onboarded team of students to Unity game development and project collaboration on GitHub.
- Led coding team design reviews with Out Maine liaisons and mentor professors.
- Learned skills in prototyping mechanisms and writing scalable code for different game components.

EMPLOYMENT, LEADERSHIP AND VOLUNTARY WORK

- Teaching Assistant Agency, Ethics and Biology
- Resident Assistant Guided and supported dorm residents, fostering community well-being.
- Technical Mentor Public Interest Technologies club, Olin College
- Student Worker Office of Strategic Communication, Olin College
- Secretary Olin South Asian Student Organization
- **Volunteer** EcoSikh Foundation Trained more than 120 young volunteers, over a period of three years, for nurturing micro-forests in their schools or backyards.