

## EDUCATION

### Bachelor of Science in Computer Science, Olin College of Engineering

Aug 2021 – May 2025

- **CGPA:** 3.88 / 4.00
- **Relevant Coursework:** Advanced Algorithms, Software Systems, Computational Robotics, Neurotechnology and ML, Data Science, Collaborative Design, Computer Architecture, Longer Term Software Development

## SKILLS

- Python, Go, C, C++, Bash, JavaScript, SQL, Java, Kotlin, Dart, R
- Git, Github, Linux, Firebase, React.js, React Native, Ansible, Docker, ROS, MATLAB, AZ-900

## EXPERIENCE

### Intern, Modular Open-Source Identification Platform (MOSIP)

Jan 2024 – Present

- Working on [INJI](#), a decentralized mobile wallet of MOSIP that enables users to download, manage, share, and verify OpenID conforming **verifiable credentials**.
- Improved the **open-source** Bluetooth credential exchange module (*Tuvali*) of INJI, allowing a presenter to select from a list of verifiers, enhancing the previous process of scanning QR codes to connect to verifiers.
- [MOSIP](#) is an open-source version of the [Aadhaar Technology Stack](#), and has helped issue digital IDs to more than **100 million people**, revolutionizing the delivery of social services and retail payments in the Global South.

### Research Assistant, MIT Connection Science

Jan 2024 – Present

- Researching the domain of **verifiable credentials** (VCs) and **personal data stores** to enhance trust in digital ecosystems for large-scale solutions like Aadhaar and MOSIP.
- Acquired in-depth knowledge of **W3C standards** for VCs and personal data stores, contributing to the development of interoperable systems.

### Research Assistant, MIT CSAIL

Jun 2024 – Aug 2024

- Worked in the [FutureTech lab](#) on the Algorithm Wiki project, a comprehensive online resource on algorithms and their development.
- Helped start a new project, focused on **machine learning**, conducting **literature reviews and surveys** to classify and quantify progress in solving ML problems.

### Full Stack Developer (Volunteer), Community Knights

Jun 2023 – Dec 2023

- Collaborated with the Non Profit Community Knights to develop an accessible ride-sharing platform for individuals with disabilities, including an admin dashboard and mobile apps for riders and drivers.
- Utilized **ReactJS**, **Firebase**, **Ant Design**, and **React Native**, to create applications with **CRUD** operations, **role-based authentication**, access control, and Google Maps integration.
- Conducted **UX design** interviews to iteratively improve the applications.

### Research Assistant, Affordable Design and Entrepreneurship, Olin College

Jun 2023 - Aug 2023

- Built 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 using **quarto**, **pandas**, and **numpy**.
- Built extensive testing frameworks using **pytest** for sensitive data cleaning functions used in parsing **thousands** of traffic stop records.

### Research Assistant, Olin College Crowdsourcing and Machine Learning Lab

Jun 2022 – Aug 2023

- Created pipeline to benchmark image matching algorithms on data collected from **50+ co-designers** for the Clew app, which is a **SLAM** based 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.

## PROJECTS

- [Clipboard-Transformer](#): A simple tool to transform text in your clipboard. Implemented in **C++**.
- [Image Segmentation](#): utilizes **graph cut algorithms** and **network flows** to separate images into distinct segments. Built in **Python** with **NetworkX** and **OpenCV**.
- [Huffman Encoding](#): implementation in **C++**.
- [CNN-MNIST](#): Classifies handwritten digits from the **MNIST** dataset using only **NumPy** and **Python**.
- [Sudoku Solver](#): **Python** implementation of the Simulated Annealing algorithm to solve Sudoku puzzles.
- [Hole-in-the-camera](#): Digital version of the game show “Hole in the Wall” implemented using **OpenCV**, **PyGame**, and **OpenPose**.

## EMPLOYMENT, LEADERSHIP AND INTERESTS

- **Teaching Assistant** - Agency, Ethics and Biology
- **Resident Advisor** - Guided and supported college residents, fostering community well-being.
- **Sub-team Lead** - Public Interest Technologies club, Olin College
- **Secretary** - Olin South Asian Student Organization
- **Student Worker** - Office of Strategic Communication, Olin College
- **Interests** - Rock Climbing, Badminton and Swimming