

## EDUCATION

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**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

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

## PROFESSIONAL EXPERIENCE

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**Research Assistant, MIT CSAIL** *Jun 2024 – Present*

- Collaborating with cross-functional teams on **literature reviews and surveys** to research various algorithms and establish metrics to **classify and quantify progress in machine learning**. This new project will help aid researchers in understanding trends and developing more efficient and scalable machine learning models.
- Working at Professor Neil Thompson's [FutureTech lab](#) on the **Algorithm Wiki project**, a comprehensive online resource on algorithms and their development.

**Technical Lead, Senior Capstone Program in Engineering (SCOPE), Olin College** *Sept 2024 - May 2025*

- Prototyping LLM-powered agents for equitable literacy in collaboration with Boston University and Red Hat.
- Managing ML operations, including **RAG, model fine-tuning** and local/cloud deployment strategies, leveraging Llama as the base model.
- Designing proof-of-concept to support K-3 students with **personalized reading comprehension tools** using **generative AI**, focusing on inclusivity and regional dialects.

**Researcher, MIT Connection Science** *Feb 2024 – Present*

- Researching interoperability of **verifiable credentials (VCs)** and **personal data stores** with Professor Alex Pentland's Connection Science group.
- Acquiring in-depth knowledge of **W3C standards** for VCs. Aiming to shape standards for trustworthy and decentralized identity management.

**Intern, Modular Open-Source Identification Platform (MOSIP)** *Jan 2024 – May 2024*

- 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.
- [INJI](#) is a decentralized mobile wallet of MOSIP that enables users to download, manage, share, and verify OpenID conforming **verifiable credentials**.
- [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.

**Full Stack Developer (Volunteer), Community Knights (Non-Profit)** *Jun 2023 – Dec 2023*

- Developed an accessible **ride-sharing platform** for vulnerable populations with Community Knights.
- Utilized **ReactJS, React Native** and **Firebase** to create applications with **CRUD** operations, **role-based authentication**, 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*

- Assisted statewide public defender agency in MA to help reduce convictions from racially biased traffic stops.
- Automated statistical report generation with **Quarto, pandas**, and **numpy**. Built **pytest** frameworks for sensitive data cleaning 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 an indoor navigation app for visually impaired users.
- Added **Protobuf** support for data logging and built a **LiDAR-based** benchmarking infrastructure in **Python**.

## PROJECTS

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

## EMPLOYMENT, LEADERSHIP AND INTERESTS

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- **Teaching Assistant** - Agency, Ethics and Biology
- **Resident Advisor** - Olin College of Engineering
- **Sub-team Lead** - Public Interest Technologies club, Olin College of Engineering
- **Vice President** - Olin South Asian Student Organization
- **Student Worker** - Office of Strategic Communication, Olin College of Engineering
- **Interests** - Rock Climbing, Badminton and Swimming