

Araf Ibne Latif

Arlington, Texas

ax15179@mavs.uta.edu | <https://www.linkedin.com/in/araf-latif/>

<https://github.com/ARAFLATIF> | <https://araflatif.netlify.app/>

EDUCATION

The University of Texas at Arlington

Aug 2023 - May 2027

Bachelor of Science, Computer Engineering

- **Coursework:** Intro to Computers and Programming, Intermediate Programming, Hardware and Software Systems, Computational Biology, Object Oriented Programming, Computer Organization and Assembly, Operating Systems

SKILLS

- **Programming Languages:** Python, Java, C, C++
- **Web Development:** JavaScript, HTML, CSS, Bootstrap, React, Node.js, Express.js, Next.js, firebase, Tailwind, TypeScript
- **Databases:** SQL, MySQL, MongoDB
- **Data Analysis & Tools:** Pandas, Numpy, Jupyter Notebook, Shell Scripting, Parallel Programming
- **Development Tools:** Visual Studio Code, Git & Github, Chrome DevTools, Postman, Figma, Firebase Console

EXPERIENCE

The University of Texas at Arlington | *Undergraduate Research Assistant*

Jan 2024 - Present

- Improved data analysis efficiency by 30% through developing automated Python scripts for data cleaning and preprocessing, while conducting comprehensive statistical analyses on large datasets using Python and SQL, increasing predictive model precision by 20%.
- Designed and implemented dynamic data visualization dashboards using Python and SQL, enabling researchers to quickly identify trends and insights. Collaborated with civil engineering researchers to interpret data analysis results, providing actionable insights that informed experimental design adjustments and improved project outcomes by 15%.

Headstarter AI | *Software Engineering Fellow*

Jul 2024 - Sep 2024

- Developed 5+ AI applications and APIs using technologies such as NextJS, OpenAI, Pinecone, and Stripe API, managing comprehensive project lifecycles from design to deployment with MVC design patterns, and demonstrating an aptitude for building reusable, scalable components.
- Collaborated with a cross-functional team-including designers, engineers, and product managers-to create and launch a SaaS product generating AI-powered, dynamic flashcards, ensuring the implementation of accessible and pixel-perfect UI components consistent with contemporary design systems practices.

PROJECTS

CodeCollab – Live Coding & Interview Practice Platform

Feb 2025 - Apr 2025

<https://github.com/ARAFLATIF/CodeCollab>

- Developed a full-stack web application enabling real-time pair programming with Monaco Editor, integrated Firebase Realtime Database for collaborative code editing, and WebRTC for peer-to-peer video communication.
- Engineered a modular Next.js platform supporting live code sharing, whiteboard drawing sync, and dynamic session routing for interview preparation, technical screenings, and virtual mentorship.

Real Time Pose Estimation and Exercise Counter

Sep 2024 - Nov 2024

<https://github.com/ARAFLATIF/POSE-ESTIMATOR>

- Developed a real-time pose estimation application using Python, MediaPipe, and OpenCV, accurately capturing and processing live webcam video to detect human body landmarks, improving exercise form monitoring for users.
- Engineered a system to calculate joint angles and track exercise repetitions by analyzing elbow angle changes, achieving a 95% accuracy rate in counting repetitions, providing reliable feedbacks.

TaskFlow Pro – Real-Time Team Task Management System

Jan 2025 - May 2025

<https://github.com/ARAFLATIF/CodeCollab>

- Built a full-stack task manager using MERN stack and Socket.IO featuring drag-and-drop Kanban boards, real-time task updates, and user-friendly UI with Tailwind CSS for collaborative workflow management.
- Architected scalable task status tracking and live synchronization across teams using MongoDB, Express, React, and Node.js, integrating Socket.IO for instant updates and modular API design.

USA Traffic Light Simulation

Jan 2024 - Apr 2024

<https://github.com/ARAFLATIF/usa-traffic-light-simulation>

- Built a multithreaded C++ simulation of U.S. traffic lights incorporating state-specific logic, concurrency handling, and modular OOP design to model realistic traffic patterns across intersections.
- Designed a scalable USA traffic light simulation in C++ that models real-world signal behavior across different states, integrating real-time logic, state management, and vehicle flow simulation.