

# Rahman Mian

[rahmanakbarmian@gmail.com](mailto:rahmanakbarmian@gmail.com) | [linkedin.com/in/rahmanmian](https://www.linkedin.com/in/rahmanmian) | <https://rmian.net>

**Languages:** Java, JavaScript, TypeScript, Python, C++, Swift, SQL, HTML, CSS

**Frameworks:** React, Next, Angular, Android Studio, Node.js, Flask, WordPress, Tailwind CSS, Swift UI kit

**Developer Tools:** Git, GitHub, Docker, Firebase, MongoDB, Google Cloud Platform, VS Code, Visual Studio

## EDUCATION

**University of Massachusetts Amherst**

*Bachelor of Science in Computer Science*

Expected Graduation: May 2025

## EXPERIENCE

**Software Engineering Intern**

July 2024 – Sep 2024

*National Renewable Energy Laboratory (NREL)*

- Developed an Angular App for the US Department of Energy (DOE) to help low-income jurisdictions identify overlooked buildings and enhance energy benchmarking for sustainable solutions.
- Created 20 Python API endpoints using Flask, integrating MapBox and AG Grid APIs to create an editable interface.
- Integrated the application with the DOE's platform, managing 800,000+ square feet of building data and enabling Excel, JSON, GeoJSON, and CSV file uploads for compatibility with existing jurisdiction data.

**Web Development Intern**

Dec 2022 – Feb 2023

*Rockville Technologies*

- Reduced code by 10% for a telecommunications website, improving user performance through script removal.
- Implemented lazy loading techniques to load only visible parts of the website, improving loading speeds.
- Added a Google Analytics platform to identify key metrics to monitor user traffic.

**IT Technician**

Mar 2021 - Present

*Mianwali Education Trust*

- Built a responsive website for a school, highlighting the NGO's mission and offering a comprehensive for donors.
- Reduced donation barriers by integrating local bank transfer options, leading to a 10% increase in donations.
- Provided consultation to the school on new computer purchases, resulting in a 20% reduction in estimated costs.

## PROJECTS

**PomoPay** | Full Stack App | *Next.js, TypeScript, Tailwind CSS, Google Cloud Functions, Cloud Scheduler, Firestore*

- Built a full-stack Next.js app that tracks users' productivity goals with dynamic NoSQL database management
- Implemented a weekly tracking system where users pay a forfeit amount; if goals aren't met, status is retrieved weekly using Google Cloud Functions and Google Cloud Scheduler.
- Set up a secure payment system using Stripe's Payment Intents API and implemented industry-standard user authorization.

**LeetBank** | Full Stack App | *ReactJS, JavaScript, HTML, CSS, Express, Firebase*

- Developed a full-stack React app for streamlining coding practice by storing, annotating, and categorizing over 3000 LeetCode questions, .
- Streamlined data fetching by implementing GraphQL requests, reducing LeetCode API calls by 83.3%.
- Optimized search algorithms, cutting query time by 40% for a faster question retrieval.

**AI-Enhanced Car Simulation World Generator** | [GitHub Demo](#) | *ReactJS, Node, JavaScript, JSON*

- Deployed 1000+ cars and a mutate function for optimization in an ML driving simulation.
- Designed an interactive UI dashboard allowing users to create and customize virtual worlds.
- Integrated real-world road data from OpenStreetMap via Overpass Turbo, efficiently parsing 2000+ lines of data.

**ML Complex Gesture Detection** | [GitHub Demo](#) | *Python, Flask, JavaScript, ESP32, MPU6050*

- Detected 6 distinct complex hand gestures using ubiquitous systems: ESP32-S3 microcontroller and MPU sensor.
- Implemented a machine learning pipeline with 200+ datasets and a Data Classification Model with 90% accuracy.

## CERTIFICATIONS

**Responsive Web Design** — **FreeCodeCamp**: Applied dynamic design principles to complete 20 web pages

**Berkeley Cryptocurrencies** — **UC Berkeley**: Blockchain History, and Ethereum & Smart Contracts in Web3.

**Game Engine Development** — **iD academy**: Coded a 3D Snake game in C++