

# Md. Ramjan Miah

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Portfolio: ahmedtrooper.vercel.app

## Education

**Jagannath University**, Dhaka, Bangladesh

*Bachelor of Science in Computer Science*

CGPA: 1.00/4.00

Expected: 2027 | Current Semester: 4th (2.2)

## Professional Experience

**Full-Stack Web Engineer (Contributor)**

Aug 2025 – Present

*Shaitrish (Remote)*

- Collaborating with CEO on **production-grade** CMS (Admin Backend/Frontend, Student Frontend) supporting **real-time collaboration**
- **Fixed and optimized Zod-based input verification** in authentication flow, **improving accuracy and consistency**
- Tech Stack: NestJS, Next.js, ShadCN, TypeScript, Redis, JWT, Google Auth, Prisma, PostgreSQL, Cloudflare, Huli

## Projects

**RailwayMatrixBD** – Full-Stack Desktop Application

Source | Releases

*Stack: Tauri v2 (Rust), React, TypeScript, Zustand*

- Built cross-platform desktop app with **two advanced features unavailable** in official Bangladesh Railway app
- **Matrices-based  $n \times n$  route query**: **Automatically** queries all station combinations in one click, **saving  $\sim n \times$  [time per query] seconds** compared to manual process
- **Segmented ticket search for indirect routes** when direct tickets unavailable; **reduces API load via local processing**

**OSGUI/OSD-Downloader** – Full-Stack Desktop Application

Source | Releases

*Stack: Tauri v2, React, TypeScript, Zustand, SQLite, FFmpeg*

- Built **lightweight GUI** for yt-dlp with **concurrent downloads**, queue management, and **FFmpeg video processing** integration
- **Outperforms** Persepolis (**6.9k stars**) with **1000+ site support**, real-time add/pause/resume, and enhanced download control

**ML-Detector** – Cross-Platform Mobile Application

Source | Releases

*Stack: Flutter, Keras, flutter\_tflite, image\_picker*

- Built **offline** tea leaf disease detection app with on-device CNN **achieving  $\sim 95\%$  accuracy**; camera/gallery input support

**AI-FestManagement** – Full-Stack Web & AI Platform

Source Code

*Stack: Django REST, React, Hero UI, Zustand, LangChain, LangGraph*

- Building **centralized** fest platform with admin/user roles, **AI-powered queries**, and **role-based access workflows**

**JnU-Bus-Routes** – Mobile Application

Source | Releases

*Stack: Flutter, SQLite, Riverpod*

- Built **offline-first** campus bus tracking app covering **all university routes** with **enhanced UI/UX** and accessibility

## Technical Skills

**Languages:** Python, TypeScript, Rust, Golang, Dart, Kotlin, JavaScript, Java, C++, C

**Frontend:** React, Next.js, Vue.js, Flutter, Tailwind CSS, ShadCN | **Backend:** Node.js, NestJS, Django DRF, Tauri

**AI/ML:** LangChain, LangGraph, Pandas, NumPy | **Database:** PostgreSQL, MongoDB, Prisma, Supabase

**Tools:** Docker, Git, Redis, FFmpeg, Zod, Zustand

## Achievements & Participations

Winner, Regional Math Olympiad | Contestant, National Math Olympiad

Participant, IUT Fest 2024 | Participant, NASA SpaceX Challenge 2025