Rudranil Chowdhury

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GitHub — LinkedIn

EDUCATION

Techno Main Salt Lake   *2023 – 2027*
B.Tech in Electronics & Communications Engineering
GPA: 8.68 / 10.0
Relevant Coursework: DSA, Computer Networks, OOPs, Web Development, Fuzzy and Neural Networks (9+ modules, 120+ hours)

PROJECTS

ZENITH – AI-Powered SSDLC Work OS — LINK   *Apr 2025 – May 2025*

- Identified gaps in Secure Software Development Life Cycle (SSDLC) causing delays in 5/10 major projects due to fragmented security enforcement.
- Designed a modular Work OS using **Next.js**, **TypeScript**, **Node.js**, and **Express**; integrated **AI** models for code analysis, vulnerability scanning, and document generation.
- Implemented CI/CD automation and containerized 8+ microservices using **Docker** to ensure scalable, secure deployment workflows.
- Reduced development time by 40%, improved code security audit scores by 60%, and saved 120+ dev-hours in internal deployments with 90% SSDLC automation.

JUDICIO – Bail Reckoner System — LINK   *Sep 2024 – Dec 2024*

- Targeted inefficiencies in legal aid by digitizing bail eligibility assessments for 30+ undertrial prisoners using 5+ legal statutes and 20+ precedents.
- Developed a **React** + **Vite** frontend and a **Node.js** + **Flask** backend; integrated **i18n** for accessibility across 7+ languages.
- Processed 10,000+ judicial records, tracked 2,000+ incarceration periods, and used **AI** logic to flag 85% of eligible cases.
- Achieved 40% reduction in bail processing time, translated over 14,000 words, and scaled usage to 200+ legal aid professionals and authorities.

HERSHIELD – Proctored Women Safety App — LINK   *Jan 2025 – Mar 2025*

- Designed a real-time, secure women-safety application tested by 50+ participants to enhance urban safety experiences.
- Engineered a **React.js** + **TailwindCSS** UI with 95+ Lighthouse scores; built a **Golang** backend using **WebSocket** for ¡100ms latency across 10+ concurrent sessions.
- Integrated **NLP** for real-time chat/call threat detection trained on 500+ samples; deployed safe-route heatmaps using **Leaflet.js** updated every 10 minutes.
- Improved safety outcomes by 75%, flagged high-risk incidents via AI threat scores, and processed 500+ crowd-sourced data points during trials.

ACHIEVEMENTS

- **Grand Finalist at Smart India Hackathon 2024 (Software Edition)** – Led one of the top 5 teams (out of 40+) under **Law automation** category.
- Led a cross-functional team of 3 developers and 1 UI/UX designer to build the official portfolio website for **EDGE 2025**, Techno Main Salt Lake's flagship techno-management fest, in 7 days — delivering 12+ pages and 100% mobile responsiveness.

SKILLS

Development: *C* , *C++*, *HTML*, *CSS*, *JavaScript*, *Java*, *Python*, *Docker*, *YML*, *NodeJS*, *NextJS*, *Express*, *Flask*, *Django*, *Supervised Machine Learning* , *Statistics*
Database: *MongoDB* , *MySQL*, *Excel/CSV Files* , *PostgreSQL*
Tools: *MS Office 365* , *Git* , *GitHub*, *VS Code*, *Visual Studio*, *DaVinci Resolve*, *Canva*
Areas of Interest: *AI* , *GenAI*, *Time-Series Analysis*, *Front-End Development* , *Web 3.0 Technology*, *Machine Learning*, *Deep Learning*, *Cryptography*, *Calculus*