

# Inzamam Ul Haque Chowdhury

inzamam.cloud | inzamamchowdhury20@gmail.com | linkedin.com/in/inzamam-chowdhury | github.com/devinsomniac

## EDUCATION

### Cardiff University

*MSc in Advanced Computer Science*

Cardiff, UK

*September. 2025 – Present*

### National Institute of Technology, Kurukshetra

*Bachelor of Technology in Computer Engineering*

Haryana, India

*June. 2020 – June 2024*

## EXPERIENCE

### Project Intern

Jan 2023 – Jun 2023

*National Institute of Technology Kurukshetra*

*Haryana, India*

- Engineered a blockchain-based crowdfunding platform enabling peer-to-peer campaign funding with transparent, tamper-resistant transaction records.
- Designed and implemented **multiple Solidity smart contracts** covering campaign creation, donation processing, and contributor tracking, with modular function design and on-chain state management.
- Built a full-stack decentralized application using React.js and Tailwind CSS, integrating MetaMask wallet authentication and transaction signing for secure user interactions.
- Implemented end-to-end campaign lifecycle logic (create, fund, query, withdraw) and tested contract functions using local blockchain test environments.

## PROJECTS

### RiskLens AI — Credit Risk Decision Support System<sup>↗</sup>

*Python, FastAPI, Scikit-learn, SHAP, Next.js, TypeScript*

- Developed an end-to-end credit risk decision support system trained on **30,000 real customer records** from the UCI Credit Card Default dataset.
- Modelled a **highly imbalanced classification problem** with an observed default rate of **approximately 22%**.
- Implemented Gradient Boosting models with **sigmoid probability calibration** using a dedicated calibration set.
- Designed a three-stage ML pipeline (**train / calibration / test**) reflecting real-world risk modelling practices.
- Integrated SHAP-based explainability to surface top risk-increasing and risk-reducing features per applicant.

### Ripple — Personalized Feed Ranking System (Ongoing)

*Python, Neural Networks, NLP, Ranking Models*

- Designing a personalized content feed system using neural network-based engagement prediction and ranking strategies.
- Exploring NLP-driven feature extraction and user-content interaction modelling for relevance scoring.
- Architecting the system to be extensible for coursework and future research-oriented evaluation.

### IrfanExpress Travel Planner<sup>↗</sup>

*Next.js, TypeScript, Gemini AI API, Drizzle ORM, PostgreSQL*

- Developed a travel planning platform using Next.js and Gemini AI API to generate personalized itineraries with real-time suggestions.
- Designed a scalable backend using PostgreSQL and Drizzle ORM to securely store and manage user travel plans.
- Built a responsive frontend using Tailwind CSS, improving usability and accessibility across devices.

## TECHNICAL SKILLS

**Machine Learning and AI:** Scikit-learn (Classification, Calibration) — SHAP — Pandas — NumPy — Matplotlib

**Languages:** Python — TypeScript — JavaScript — Java — C/C++ — SQL

**Backend & APIs:** FastAPI — Node.js — Express.js — REST APIs — NextAuth.js

**Frontend:** Next.js — React.js — Tailwind CSS — CSS — Bootstrap — EJS

**Databases:** PostgreSQL — MySQL — MongoDB — Drizzle ORM — Neon

**Tools & Platforms:** Git — Render — Vercel — Gemini AI API