Tuhin Chakrabarty

Mail | (+91) 8141697841 | LinkedIn | GitHub | HackerRank

Professional Summary

Software Engineer experienced in building scalable backend and full-stack systems using Python, C++, React, Django, Flask, and SQL. Skilled in API design, distributed systems, cloud development, automation, and production engineering, with a strong foundation in DSA, software design, testing, and delivery.

Education

Vellore Institute of Technology, Vellore, BTech Computer Science Engineering 2019-2023

GPA: 8.6/10.0 - Merit Holder (Link) **Coursework:** Advanced Algorithms & Data Structures, Operating Systems, Computer Networks, Distributed Systems, DBMS, Software Engineering

Experience

Software Engineer 2, **PayU** – Bengaluru, India Dec 2025 – Present

- Led **PRISM 2.0**, architecting a secure, multi-tenant financial intelligence platform for large-scale SMS ingestion and analysis, with encrypted data pipelines, isolated processing, ML-driven workflows, and cloud-native deployments.
- Led development of a **regulatory-compliant, multi-tenant AA TSP consent platform** User Journey enabling automated credit and risk decisions through secure data-access workflows, consent lifecycle management, monitoring, and audit capabilities.
- Owned the architecture and reliability of **PRISM**, designing distributed, event-driven systems for low-latency, fault-tolerant processing of large-scale transaction and messaging workloads, improving performance, resilience, automation, observability, and security.

Software Engineer 1, **Bank of America** – GIFT City, India Jul 2023 – Nov 2025

- Developed and supported **low-latency C++ and Python services** for the Apex/Martini Global Repo Trading Platform, supporting critical trading workflows and production stability.
- Designed **Optimus**, a Python/Tornado support automation platform with RASA NLU, replacing licensed third-party solutions and streamlining operational workflows.
- Built a **React + Flask automated regression framework**, reducing manual QA effort by approximately **90%** and accelerating release validation.

Projects

PricePilot-Intelligent-Pricing-Dashboard Github

Full-stack pricing intelligence platform built with **Python, Django, React, and TypeScript**, combining demand forecasting, price elasticity, Random Forest optimization, inventory constraints, and A/B simulations to generate data-driven pricing recommendations through REST APIs and interactive analytics.

Fullstack-Restaurant-App Github

Full-stack restaurant management platform using **Node.js, Express, MongoDB, React, Angular, and TypeScript**, featuring a shared REST API architecture with JWT/OAuth authentication, RBAC, validation, and secure service-driven workflows across multiple frontend clients.

Technologies

Languages: Python, C++, JavaScript, SQL, Perl
Frontend: React.js, Vite, MUI, Tailwind CSS, HTML
Backend & APIs: Django, Flask, Tornado, Gunicorn, REST APIs, Microservices
Cloud & Infrastructure: AWS, Docker, Amazon ECR, Terraform, Linux
Databases & Messaging: PostgreSQL, DynamoDB, MySQL, SQLite, Oracle, Kafka, RabbitMQ, Amazon SQS
DevOps & Observability: Jenkins, Signoz, Elastic, AutoSys, CI/CD
Engineering: Distributed Systems, API Design, DSA, LLD, HLD, Testing, Code Review, Agile, Automation, Mentoring

Achievements

- Awarded the 2x Global Gold Recognition Award at Bank of America for automating regression and saving license costs using Optimus, bypassing APEX login dependency.
- Recipient of the VIT University Merit Scholarship for academic performance, 2019–20.