Alfardil Alam

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EDUCATION

New York University, New York, NY   Sep 2023 – May 2027
B.A Computer Science and Mathematics
Relevant Coursework: *Data Structures, Basic Algorithms, Operating Systems, Software Engineering, Linear Algebra, Calculus III*
Awards: *Winner Hack@Brown 2025, Winner BYTE Hacks 2025*

EXPERIENCE

Security Researcher, New York, NY   Nov 2025 – Present
NYU Secure Systems Lab
- Authored a setup command that abstracts cryptographic key management and policy provisioning, increasing developer initialization rate by cutting onboarding time by 90%.
- Implemented the read access control rules for gittuf, a platform agnostic Git security system, as used by Bloomberg.

Network Researcher, New York, NY   Jan 2025 – Dec 2025
NYU High Speed Research Network
- Collaborated with an Agile team of 5 to deploy authentication services using Keycloak SSO and Netbox authentication powering the developer workflows of 7+ student research groups.
- Created a query log to monitor app state changes and device MAC addresses, supporting the traffic of 120+ researchers.

Software Engineer Intern, New York, NY   May 2025 – Sep 2025
Lexor Strategies
- Launched a real estate rental platform, developing the core automated task infrastructure that powered the data pipeline and secured the first 20+ customer conversions.
- Patched OAuth PKCE implementation on a fitness app with 100k+ followers generating an estimated $15,000 yearly.

Software Engineer, Bronx, NY   Feb 2023 – Sep 2025
Synergy Prep
- Maintained an AI web app written in Flask & React that generates documents with user-selected topics to eliminate academic weaknesses as used by 200+ students with over 7000+ messages sent & 800+ documents generated.

PROJECTS

CodeBloom   *codebloom.patinanetwork.org* | *github.com/tahminator/codebloom*
- Developed a competitive coding platform using React & SpringBoot, allowing college students to track & compare LeetCode progress on a real-time leaderboard with the goal of providing motivation to the community.
- Reverse engineered & integrated GraphQL queries from *leetcode.com* to access data programmatically and bypass rate-limiting of existing APIs. Tracked 12,000+ questions with 210+ users and 35+ stars on Github.
- Optimized custom SQL queries to create RESTful API endpoints, custom objects, and database models to store and retrieve data efficiently through Postgres. Set up cron jobs to regularly fetch data.

Thestral
- Built a developer tool with FastAPI, ingesting any GitHub repository to generate system design diagrams and provide granular context on code usage, accelerating contributions to the open source community.
- Engineered an asynchronous RAG ingestion pipeline using LangChain and pgvector, implementing concurrent batching to reduce repository indexing latency by at least 60% while managing 300k+ token workloads.

SKILLS

- **Languages:** Java, Python, TypeScript, JavaScript, Go, C, C++, Bash
- **Development:** HTML, React, Next.js, Node.js, Vite, Knex, React Native, Vercel, Express.js, Flask, Spring Boot, Github Actions, gRPC
- **Database:** SQL, PostgreSQL, SQLite, Firebase, MongoDB, Neon, DrizzleORM, Prisma, Flyway, HikariCP, DBeaver, TablePlus
- **Others:** Git, Docker, AWS, Azure, DigitalOcean, OpenAI, Langchain, Stripe, Fly.io, Nodemailer, Postman, VSCode, Maven, Google Cloud

LEADERSHIP

Captain, Men's Ultimate Frisbee   Sep 2021 – Present
- Managed $25k in funding while coordinating travel, accommodations, and game schedules for 20+ athletes across multiple out-of-state tournaments; boosted team visibility through social media content attracting 80k+ views & 500+ followers.