

Navinashok Swaminathan

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EDUCATION

Columbia University

M.S. Computer Science

Aug 2024 – Dec 2025

New York, NY

College of Engineering Guindy, Anna University

B.Tech. Information Technology

Jul 2019 – Apr 2023

Chennai, India

TECHNICAL SKILLS

- **Languages:** Java, Python, C++, JavaScript/TypeScript, SQL
- **Core CS:** Algorithms & data structures, system design
- **Backend:** Spring Boot, gRPC, REST, GraphQL, Node.js/Express
- **Cloud & DevOps:** AWS (EKS — Lambda — S3), GCP, Docker, Kubernetes, Terraform, GitLab CI/CD
- **Data & Messaging:** Kafka, Spark, PostgreSQL, Snowflake
- **Observability & Testing:** Prometheus, Grafana, Datadog, JUnit, pytest

EXPERIENCE

Amazon

Software Development Engineer Intern

Jun 2025 – Sep 2025

Seattle, WA

- Incoming SDE intern (AWS); project details under NDA until program start.

BNY Mellon

Software Engineer

Jul 2023 – Aug 2024

Chennai, India

- **Cross-Regional ETL:** Architected a Java-based distributed ETL system that migrated **5 TB** of financial data between Teradata regions; custom key-range partitioning and parallel loaders cut runtime by **80%**.
- **Real-time Replication:** Engineered a Pentaho-driven CDC pipeline (Oracle → Snowflake) to sync trade adjustments within seconds, enabling near-real-time cross-business analytics.
- **Spring Boot Upgrade:** Led platform lift from Spring Boot 2 → 3; addressed dependency breakage, hardened 21 CVEs (incl. Log4j) and introduced blue-green deployment for zero-downtime cut-over.
- **Disaster Recovery:** Implemented automated restore for 53 Teradata tables via versioned S3 backups and GitLab CI/CD parallel tasks; recovery shrank from hours to **<30 min**.
- **Query Performance:** Optimized mission-critical risk reports with aggregate views and query-parallelization, halving p99 latency for high-volume analytics workloads.
- **QA Automation:** Built a Python + proprietary-AI classifier that triages test-spec documents (90% accuracy), reducing QA review time by **70%**.
- **Operations & Incident Response:** Resolved **20+** sev-1/2 incidents; introduced post-mortem templates and alert tuning that cut recurrence by **60%**.

Accolite Digital

Software Developer Intern

Jun 2022 – Aug 2022

Chennai, India

- Designed and developed a Spring Boot + React onboarding portal adopted by **300+** new hires; maintained 85% unit-test coverage.

SELECTED PROJECTS

- **AniMusic — Anime Music Recommender:** Chrome extension + FastAPI (PostgreSQL); ensemble of MPNet, MiniLM, Node2Vec, TF-IDF. Sustains **600 RPS** @ p95 < 200 ms under k6 load test. [GitHub]
- **XQL — XML Query Compiler:** Tokenizer → recursive-descent parser → SQL emitter for XML queries; Dockerized GitHub Actions CI enables zero-touch Postgres/MySQL swaps. [GitHub]
- **PharmaId — Medication-List Service:** Spring Boot microservice on GCP Cloud Run; JWT RBAC, Swagger/OpenAPI docs, PMD/Checkstyle gate; Jacoco coverage > 90 %. [GitHub]

LEADERSHIP & AWARDS

- Mentor — BNY Mellon Engineering Bootcamp (observability & incident response for 6 new interns)
- International Mathematics Olympiad 2017 — 5th place, Singapore
- IIT-JEE Advanced 2019 — Top 1 % nationwide