

ZAYDAAN JAHANGIR

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EDUCATION

Northeastern University

Boston, MA

Bachelor of Science in Computer Science and Artificial Intelligence

Sep 2023 – May 2027

Relevant Coursework: Data Structures, Database Design, Object-Oriented Design, Linear Algebra, Statistics, Operating Systems, Algorithms, Machine Learning, Artificial Intelligence, Network Analysis, Theory of Computation, Security of Agentic AI (Research)

EXPERIENCE

SpaceX

Sep 2026 – Dec 2026

Incoming Software Engineer Intern - Constellation Engineering

Redmond, WA

Amazon Web Services

Jun 2026 – Aug 2026

Software Engineer Intern - Elastic File System

Boston, MA

- Built a distributed throttling layer enforcing a shared throughput budget across **10,000+** file systems, using a leader-elected allocator to compute each file system's fair share in real time, accurate to within **0.5%** at scale.
- Designed fleet-wide coordination protocol for servers to report and persist file system usage via sharded DynamoDB rows.
- Implemented a max-min fair water-fill algorithm to dynamically reallocate unused capacity from idle to busy file systems, with fail-safe handling for leader failovers and partial writes to guarantee budgets are never exceeded.

Chewy

Jun 2025 – May 2026

Software Engineer Co-op - Content Engineering & Developer Experience

Boston, MA

- Led upgrades on distributed APIs for the Recommendations and Ratings services by modernizing contracts, implementing parallel execution, and profiling and tuning thread-pool allocation, achieving a **77%** P99 latency reduction.
- Implemented feature flag service for Kafka failover and caching to ensure content orchestration uptime for **500+** pages.
- Built a real-time telemetry ingestion and aggregation platform over GitHub webhooks, processing events from thousands of repositories into engineering health metrics, dashboards, and alerting for developer-experience teams.
- Deployed AI Slack agents eliminating repetitive stakeholder question bottlenecks, cutting response times by **98%**.

Generate

Jan 2026 – Apr 2026

Software Engineer

Boston, MA

- Built SelfServe, a staff-side hotel operations platform that lets hotel staff create, assign, and track guest and maintenance requests, with an AI assistant that converts free-text into structured tickets.
- Built backend API routes and guest-management features, database indexes for query performance, struct validation across core models, and an AI tool registry entry with UI for LLM-driven lookups in generated requests.

Scout | React, Next.js, TypeScript

Aug 2024 – Mar 2026

Tech Lead

Boston, MA

- Led development of full-stack applications using React and Typescript, serving **100K+** invocations with **99.99%** success.
- Built and maintained payment flows using Stripe and Shopify, ensuring secure, reliable checkout experiences.
- Architected an event-driven CMS system with Contentful webhooks, cutting monthly API requests by **92%**.

PROJECTS

Agent-RIDR: Agentic Prompt Injection Detection | Python, Pytorch | [Paper](#)

- Implemented core techniques from the [Attention Tracker](#) and [TaskTracker](#) papers, utilizing activation deltas and Focus Scores to build a linear classifier that identifies prompt-injected instructions with 96% average accuracy.
- Continuing research in AI security infrastructure and distributed systems advised by Prof. Cristina Nita-Rotaru.

NUFS Filesystem & Mini-Shell | C, FUSE, POSIX, Linux

- Built an inode-based FUSE filesystem in C (20+ operations, hierarchical directories, custom bitmap block allocator) with read/write throughput within 10% of native memory, plus Unix shell with pipelines and I/O redirection via fork/exec/pipe.

SKILLS

Languages: C/C++, Python, Java, TypeScript, Go, Kotlin, SQL

Libraries & ML: PyTorch, Pandas, NumPy, Scikit-learn, vLLM, SGLang, LangChain, Autogen

Frameworks: React, Next.js, Spring Boot, Guice

Infrastructure: AWS, Terraform, Docker, Kubernetes, Kafka, PostgreSQL, Redis, Elasticsearch