

Subham Kumar

Student at Northeastern University

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github.com/growlyx

EDUCATION

- **Northeastern University** Oakland, CA
1st Year Undergraduate Student, Sophomore Standing. GPA: 4.0/4.0 Expected Graduation: May 2028 Class of 2029

PROFESSIONAL EXPERIENCE

- **Rule Your Own Game, Inc.** Pearland, TX (Remote)
Software Engineering Lead, Part-Time
 - **Infrastructure:** Deployed highly available infrastructure on bare metal using Kubernetes (Helm, Agones), managing 60+ game server instances supporting 1,500+ concurrent players and 2.5M+ unique players.
 - **Performance & Monitoring:** Observability using VictoriaMetrics and Grafana- integrated widely across the legacy codebase. Built automated CI/CD tooling in Kotlin & Rust to deploy content updates to all edge nodes within 2 minutes.
 - **Content Modernization:** Designed an extensive Kotlin framework enabling rapid content production. Shipped rewrites of 4 major minigames in 3 months, saving thousands in development costs. Built an automated chat moderation system using OpenAI's Omni Moderation model.
 - **Team Leadership:** Managed a team of 3 software engineers asynchronously, onboarded and trained 5+ engineers on a modernized codebase through 1-on-1 mentoring sessions. Designed a player queue and load-balancing frameworks enabling zero-downtime deployments.
- **Fragile, Inc.** San Francisco, CA (Remote)
*Software Engineer, Part-Time**Nov. 2024 - Jan. 2025*
 - **Infrastructure:** Worked on the core modular monolith TypeScript backend services and AWS cloud infrastructure that powers Fragile's hardware subscription platform (billing/logistics).
 - **Frontend:** Designed and upgraded existing internal tooling used by Fragile's customer service team for enhanced productivity.
- **NYU IT High Speed Research Network** Brooklyn, NY
*Software Engineer**Dec. 2022 - Dec. 2024*
 - **Web Development:** Led end-to-end development of a web dashboard built in TypeScript using Next.js, actively used by NYU research scientists. Built a modern version of Corelink's dated API client for AR/VR research purposes.
 - **Backend Systems:** Built a low-overhead, self-managed notification service using PostgreSQL's JSON fields for flexible schemas. Developed a device management system with self-registration, complex permission checks, and audit logging, integrated with network switch software for automated firewall management.
 - **Technical Leadership:** Conducted multiple rounds of technical interviews to recruit new undergraduate and post-graduate members for the program.

CERTIFICATIONS

- **AWS Certified Machine Learning - Specialty** Amazon Web Services (AWS)
Issued: Sep. 2024
- **AWS Certified Solutions Architect - Associate** Amazon Web Services (AWS)
Issued: Sep. 2023

PERSONAL PROJECTS

- **Mono:** Open source FTC library with state machine system, robot subsystem lifecycle management, and builder-based gamepad command system.
- **Symphony:** Modern replacement to RedisBungee, a system built to achieve consensus and data synchronization on multiple Minecraft network proxies through Redis.
- **Minigames:** OSS framework that Rule Your Own Game, Inc. uses for its scalable minigame infrastructure.
- **Liftgate:** Open source game server deployment system, auto-scale system, and service mesh with gRPC.

TECHNICAL SKILLS

- **Languages:** Kotlin, Java, TypeScript, Python, Rust
- **Frameworks:** Spring Framework, Ktor, React, Next.js, gRPC, OpenCV
- **Infrastructure:** Kubernetes (Helm, Agones), AWS (Amazon Web Services), Azure, Docker, CI/CD (Jenkins, TeamCity), Nginx, Tailscale, Terraform, Consul, Nomad, Ubuntu, Debian
- **Datastores:** PostgreSQL, MongoDB, Redis, Zookeeper, DynamoDB, RDS, Apache Kafka/Spark/Flink
- **Observability:** VictoriaMetrics, Grafana, Prometheus, DataDog