

KSHITIJ KUMAR

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Education

Northeastern University

Master of Science in Software Engineering Systems

Expected Dec 2026

Boston, MA

National Institute of Science and Technology

Bachelor of Science in Computer Science

Aug. 2015 – Apr. 2019

Berhampur, India

Publications

“Software Piracy Protection and Detection using HMM, Code Obfuscation, Dynamic Code Mutation and Cryptographic Techniques”

Dec. 2023

International Journal of Science & Engineering Development Research (IJSERD), ISSN:2455-2631, Vol.8, Issue 12, pp.458–468 | [link](#)

Work Experience

Crewasis

Feb. 2025 – Present

Software Engineer Co-op | Decision Intelligence Platform

Brooklyn, NY

- o Scaled the platform with three core products (Hazra AI Ranking Engine, Winston Agentic AI, Pattern Sandbox) to 90+ REST API endpoints with OpenAPI docs across Django backend and Next.js portals, integrating Stripe billing, HubSpot CRM, Auth0 SSO, and automated client onboarding pipelines directly contributing to **107% quarter-over-quarter MRR growth**
- o Optimized Winston Agentic AI response time from 13–15s to **5–7s (55% faster)** by replacing LLM routing with keyword heuristics, merging 2 LLM calls into 1, parallelizing embeddings and retrieval, and adding Cohere Rerank 3.5 two-stage filtering (20 candidates narrowed to 5), deployed on ECS Fargate handling **10K+ monthly queries**

Infosys

Dec. 2022 – Jul. 2024

Senior Software Developer | DHL-GCA Logistics Data Platform

Bengaluru, India

- o Reduced undelivered package processing latency by **70%** by optimizing SQL queries and implementing Kafka-based event-driven messaging, handling 50K+ messages/day during peak load
- o Enhanced microservices observability by implementing distributed tracing with Spring Cloud Sleuth and Zipkin, reducing mean time to resolution (MTTR) by **60%** across 12 services
- o Achieved **92%** test coverage and reduced critical vulnerabilities by 35% by integrating SonarQube into CI/CD pipelines, cutting code review time by 40%

ModulusPI

Mar. 2021 – Nov. 2022

Full Stack Developer | Alchemist - B2B SaaS Platform

Hyderabad, India

- o Decomposed monolithic .NET Core application into 5 independently deployable microservices using clean architecture, reducing build time from 12 minutes to 4 minutes and enabling parallel development across 3 teams
- o Built enterprise ReactJS component library with design tokens integrated across 15+ applications, reducing new feature development time by **40%** and standardizing UI/UX patterns company-wide
- o Implemented Active Directory SSO authentication using .NET Core, enabling secure single sign-on for **2,500+ enterprise users** and cutting help desk password reset tickets by **25%**

Projects

Scalable Cloud Infrastructure Platform | *Node.js, AWS, GCP, Terraform, Packer, GitHub Actions* | [link](#)

2024

- o Deployed a scalable Node.js API on AWS with CI/CD automation via GitHub Actions, enabling seamless and reliable delivery pipelines
- o Provisioned cloud infrastructure using Terraform and Packer for consistent AMI creation and environment reproducibility across AWS and GCP

RAG Engine | *FastAPI, Next.js/React, Python, TypeScript, Docker* | [link](#)

2024

- o Engineered production-ready RAG system supporting 3 LLM providers (OpenAI, Gemini, Ollama) with intelligent vector search using Chroma and Qdrant, reducing query response time by 40% through caching optimization
- o Built full-stack application with RESTful APIs, admin dashboard, and CLI tools for document ingestion and model orchestration, enabling knowledge-base management for 100+ documents with Docker deployment

Technical Skills

Languages: Python, Java, JavaScript, TypeScript, C#, SQL, HTML/CSS

Backend: Django, FastAPI, Spring Boot, .NET Core, Node.js, Express.js, REST APIs, OpenAPI

Frontend: React, Next.js, Redux, Tailwind CSS

AI/ML: LangGraph, LangChain, Amazon Bedrock, pgvector, RAG, Cohere Rerank

Cloud & DevOps: AWS (ECS, RDS, S3, Lambda), GCP, Docker, Kubernetes, Terraform, GitHub Actions, CI/CD

Data & Tools: PostgreSQL, MongoDB, Kafka, Redis, Stripe API, Auth0, Git