ASIM SK

Work Experience

Vinva Technologies Pvt Ltd

Dec 2024 - Jun 2025

Software Engineer Intern

- Optimized API performance by integrating **Redis caching** with **Node.js**, reducing response times from **7–8 seconds** to **under 10 milliseconds** for frequently accessed endpoints, significantly lowering backend load.
- Used the **Sidecar pattern** to add **logging and authentication** without changing the main backend code, improving scalability, simplifying updates, and enhancing overall maintainability.
- Refactored code using **SonarQube**, Dockerized **microservices** for consistency, and integrated **Redis and Kafka** to enhance **caching** and **event-driven communication**.
- Used TanStack Query for API data fetching and Zod for input validation, improving performance and reliability.

Projects

Semantix - Web AI Agent O | Next.js, Gemini AI, Pinecone, Shaden |

July 2025

- Built an AI system using Cheerio, Puppeteer, Gemini AI, and Pinecone to transform unstructured website data into a semantic knowledge base using LLMs, enabling natural language chat-based search across complex sites.
- Created text processing with LangChain chunking and Gemini vector embeddings for fast, accurate search.
- Hybrid web scraping to extract data from static & dynamic sites, Langfuse for monitoring and optimization.

S3 Buddy - S3 Web UI O | TypeScript, NeonDB, Encryption |

August 2025

- A full-stack **AWS S3** management application that provides a secure, intuitive, and enterprise-grade interface—solving the complexity of directly managing **S3 buckets** through a modern UI with seamless file operations.
- Built 6 **RESTful API** endpoints for upload, download, delete, and encrypted credential management.
- Backend with Clerk authentication, Drizzle ORM, and AES-256 encrypted credentials for S3 configuration.

May 2025

- Developed a **geo-coding** system that converts coordinates into **unique 10-character** codes, solving India's addressing inconsistencies for precise location identification in **emergency services and delivery optimization**.
- A 10-level recursive grid algorithm with boundary validation achieving 4-meter location precision across India.
- Interactive mapping interface using Leaflet & TanStack Query for coordinate tracking and API integration.

Build My Own Internet O | System Design, AWS, Architecture |

June 2025

- Designed and implemented end-to-end **software systems** from scratch, replicating core functionality of popular platforms to deepen **systems architecture** knowledge and **engineering skills**.
- Tried out and compared different **tools**, **algorithms** & **system designs** by building prototypes, testing performance, and weighing pros and cons.

Technical Skills

Languages: Java, JavaScript, Shell Scripting, SQL

Frontend Development: React.js, HTML5, CSS3, Tailwind CSS, Shadcn/UI

Backend & Frameworks: Node.js, Express.js, RESTful API, Mongoose(ODM), Prisma (ORM)

Databases & Search: MySQL, MongoDB, Redis, Pinecone

AI/ML & Generative AI: AI Agents, LangChain, RAG, LangGraph, MCP Server, Embedding Models, Langfuse, Ollama

Cloud, DevOps & Tools: Docker, Kubernetes, AWS, Serverless, Nginx, Linux, Grafana, GitHub, Wireshark, Postman

Education

NEW HORIZON COLLEGE OF ENGINEERING

September 2021 - November 2023

Master of Computer Application (MCA)— CGPA: 8.37

Banqalore, Karnataka

THE UNIVERSITY OF BURDWAN

June 2017 - October 2020

Bachelor of Computer Application (BCA)— CGPA: 6.54

Burdwan, West Bengal

Achievements

CODING PROFILE

- 100 Days Badge 2024 on Leetcode
- Total 450+ Problem Solved

Certificates

AWS Cloud Practitioner

March 2023 - March 2026