Ayush Shukla

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SKILLS

- **Languages**:   Java, JavaScript, Python
- **Frameworks**:   React, NextJS, NodeJS, Spring Boot, FastApi
- **Tools/Platforms**:   Linux, Git, Docker, Nginx, CI/CD, AWS (EC2, S3, CloudFront/CDN)
- **Databases/ORM**:   Postgres, MongoDB, Prisma
- **CS Fundamentals**:   DSA, DBMS, OOP, Operating System, Computer Networks
- **AI/ML:**   Gen-AI, RAG, LLMs
- **Soft Skills**:   Problem-Solving, Adaptability, Team Collaboration, Quick Learner

PROJECTS

FlashByte | High Performance In-Memory Store | Github   Jan' 26 - Present
Tech Stack: Java, Spring Boot, Spring Web, ConcurrentHashMap, Maven

- Built a Redis-inspired in-memory key-value store with thread-safe, constant-time GET/SET operations.
- Implemented TTL-based key expiration using lazy eviction and Redis-compatible TTL semantics.
- Designed a modular storage engine using immutable entries and concurrent data structures.
- Architected the system for future extensibility, enabling persistence and background eviction.
- Established a modular architecture with strict separation of API, command, and storage layers, improving system extensibility and long-term maintainability.

LLM Based Query Retrieval System | RAG Automation Pipeline | Github   Aug' 25
Tech Stack: Python, FastApi, OpenAI Embeddings, OCR, Google Gemini Pro, ChromaDB

- Built a RAG-based query retrieval system to answer questions over long unstructured documents.
- Implemented vector-based document storage and retrieval, optimizing token usage of LLM.
- Designed an agentic workflow to execute actions involving external APIs and web data sources.
- Developed a FastAPI-based inference API with document caching to reduce latency.

S3Cloud Domain | Subdomain Distribution Platform | Github   Oct' 25
Tech Stack: NextJS, CloudFlare, DNS, Postgres, Captcha

- Architected and implemented a subdomain provisioning service with automated DNS orchestration.
- Integrated custom CAPTCHA system for protecting service endpoints against automated misuse.
- Leveraged serverless architecture and efficient API strategy for domain lifecycle management.
- Delivered real-time operations and front-end interactivity using modern JavaScript frameworks.

TRAINING

Full-Stack Web Development (MERN) – Cipher Schools   Jun' 25 - Jul' 25

- Mastered the MERN stack to build scalable, data-driven web applications.
- Developed RESTful APIs, JWT-based authentication, Middlewares, Indexing and Security

CERTIFICATES & LEARNING

- AWS Training & Certification: Amazon EC2 Basics   Sep' 25
- Cloud Computing | NPTEL Online Certification (IIT Kharagpur)   Jan' 26 - Present

Achievements

- Solved 300+ coding problems across Leetcode, GFG & CodeForces
- 90th out of 10,000 teams in Bajaj HackRx 6.0 Agentic AI Hackathon   Aug' 25
- 6 Stars in Problem Solving on HackerRank

EDUCATION

- **Lovely Professional University**   Phagwara, Punjab
  Bachelor of Technology - Computer Science and Engineering; CGPA: 8.6   Aug' 23 - Present

- **Radha Madhav Public School**   Bareilly, Uttar Pradesh
  Intermediate; Percentage: 75   Apr' 21 - Jun' 22

- **St. Mary's Convent School**   Bareilly, Uttar Pradesh
  Matriculation; Percentage: 93   Apr' 19 - Jun' 20