Md Shafak

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SUMMARY

Backend Developer & AI Prompt Engineer with expertise in architecting scalable, distributed systems and optimizing LLM-driven workflows. Proficient in **Python, Flask, FastAPI, PostgreSQL, Redis, AWS, Docker, Microservices, and System Design**. Experienced in building fault-tolerant APIs, reducing latency through caching & query optimization, and deploying cloud-native solutions. Skilled in designing, testing, and fine-tuning AI prompts to improve model accuracy, edge case handling, and inference performance in production environments.

TECHNICAL SKILLS

Languages: Python, JavaScript (Node.js), Java, C++, SQL, HTML/CSS

Frameworks: Flask, FastAPI, Django, Express.js, Bootstrap

Databases: PostgreSQL, MySQL, MongoDB, Redis

DevOps & Cloud: Docker, Kubernetes, AWS (EC2, S3, RDS, Lambda, CloudWatch), GitHub Actions, Jenkins

Concepts: Distributed Systems, REST API, Microservices, Authentication (JWT, OAuth2), Caching, Event-Driven Architecture, Data Structures & Algorithms, OOP, SDLC

Soft Skills: Problem Solving, System Thinking, Collaboration, Communication

EXPERIENCE

Senior Associate - Backend Developer (AI/LLM Systems) — Oct 2024 – Present
Innodata Inc. — *Noida - India*

- Developed and maintained Python-based backend services to manage and process requests for large language model (LLM) applications.
- Implemented robust error handling and logging to capture and address edge cases, improving system stability in production environments.
- Optimized API endpoints and backend workflows to reduce latency and enhance data processing speed for high-volume inference requests.

Application Developer — May 2021 – Aug 2021
EICT IIT Kanpur — *Kanpur*

- Built Python and Node.js backend services to support music streaming features, handling media requests and playback control.
- Implemented SQLite-based local storage with data synchronization logic to enable reliable offline access and seamless user experience in low-network conditions.

Quality Engineer – Python Prompt Systems — March 2022 – May 2024
Outlier.ai — *Freelance*

- Developed and executed Python scripts to validate prompt execution workflows for large language model (LLM) backends.
- Created automated test cases to detect edge cases and ensure consistent model outputs across various datasets.
- Optimized and refactored SQL queries within the evaluation pipeline, improving backend response times and data retrieval efficiency.

PROJECTS

Aithris – Scalable Data Annotation Platform | *Flask, PostgreSQL, Redis, AWS, Docker, FastAPI* — 2024

- ∗ Engineered a distributed backend architecture using Flask and FastAPI microservices to handle 10K+ daily annotation tasks with horizontal scaling.
- ∗ Implemented secure user authentication via Google OAuth 2.0 and JWT, improving login success rates and reducing onboarding friction.
- ∗ Optimized task retrieval using Redis caching and background workers, cutting API latency by 60% and improving throughput.
- ∗ Deployed on AWS (EC2, RDS, S3) with Dockerized containers and CI/CD pipelines via GitHub Actions, ensuring zero-downtime updates.
- ∗ Designed PostgreSQL schemas and indexing strategies for high-volume concurrent read/write operations.

Ticket Booking System | *React.js, PostgreSQL, Node.js, Express*   2023
  * Built a backend API with transactional integrity for 2K+ concurrent seat bookings, ensuring ACID compliance.
  * Implemented role-based access control and rate-limiting middleware to enhance system security and prevent abuse.

PG Finder Platform | *PHP, MySQL, JavaScript*   2021
  * Developed a dynamic property listing and booking backend with search filters and secure payment processing.
  * Optimized SQL queries and implemented database normalization to improve query speed for 500+ listings.

Weather Tracker API Service | *Flask, OpenWeather API, Redis*   2022
  * Built a backend API that retrieves and caches real-time weather data with sub-second response times using Redis.
  * Integrated rate-limiting and error-handling mechanisms to ensure API reliability under high load.

EDUCATION

B.Tech in Computer Science and Engineering (CGPA: 8.36)   2020 – 2024
B P Mandal College of Engineering, Madhepura

AWARDS AND CERTIFICATIONS

Cisco: Python Programming (Code Rider), CCNA, Cybersecurity Essentials
NPTEL: Java Programming, C Programming
Competitive Programming: Solved 200+ problems on LeetCode
Hackathons: Participant in Smart India Hackathon 2022