

Shashank Tiwari

Software Engineer | Backend Systems | Distributed Infrastructure

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SUMMARY

Software engineer with **2 years** of experience building backend platforms and distributed services in **Python** and **Java**. Shipped production systems handling **10,000+ requests/day**, improved P99 latency from **820ms to 310ms**, and built reliable infrastructure on Kubernetes for high-volume internal and enterprise workflows.

EDUCATION

Indian Institute of Information Technology Allahabad
Bachelor of Technology in Electronics & Communication Engineering

Nov 2020 – May 2024
CGPA: 8.80/10.0

WORK EXPERIENCE

- DeccanAI**
AI & Backend Engineer

Oct 2025 – Present
Hyderabad, India

 - Built a **production RL platform** (Python, FastAPI) for **human-in-the-loop** golden trajectory generation, coordinating 500+ annotators and driving **\$10M ARR**.
 - Architected **Stark-Forge**, a distributed backend framework that runs isolated services on Kubernetes. Added pluggable SQL, JSON, and Python verification services with support for multiple agent runtimes.
 - Designed **evaluation and verification pipelines** by defining success criteria and automated checks for SQL and code tasks. Improved end-to-end task success rate from **41% to 68%**.
 - Owned delivery of **20+ production MCP servers** that generated verified execution traces. The Jira MCP server handles **10,000+ requests/day** in production evaluation pipelines used by **Microsoft and Google**.
 - Fine-tuned **Qwen-0.5B** for text-to-SQL on Spider using Agent-Lightning, reaching within **2% of GPT-4o-mini** accuracy. Improved efficiency with **3x smaller scale** and **10x lower inference cost**.
- Deutsche Bank**
Software Engineer

Jul 2024 – Oct 2025
Pune, India

 - Architected a **RESTful ETL pipeline** (Spring Boot, Airflow, SQL) automating **10,000+ alerts/day** across financial workflows. Reduced data load time by **40%** and freed 3 ops engineers for higher-value work.
 - Engineered **high-concurrency microservices** with Memcached and Java ExecutorService for business-critical internal systems. Reduced outages by **30%** and improved P99 latency from **820ms to 310ms** for 5,000+ daily users.
- AiDash**
Machine Learning Engineer Intern

Jan 2024 – Jul 2024
Bengaluru, India

 - Built a **Python ML SDK** abstracting Kubeflow and Airflow; compressed pipeline setup from **2 days to 3 hours**, adopted by 12+ data scientists with **30%** faster experiment cycles.
 - Developed a **human-in-the-loop Annotation Service** with QGIS for raster validation; eliminated **40%** of manual GIS effort across 8 annotation campaigns.

PROJECTS

- Finwise** | *Next.js, FastAPI, LangChain* | [Live Demo](#)

 - Built a **low-latency FastAPI backend** for financial workflows with async request handling, streaming responses, and tool orchestration. Supported **100+ concurrent sessions** at sub-500ms latency.
- Price Watch** | *Python, Scrapy, MySQL* | [Live Demo](#)

 - Scraped and tracked **50,000+ product listings** with automated price-drop alerts; delivered **15% average buyer savings** per triggered purchase across 200+ active users.

TECHNICAL SKILLS

Languages: Python, Java, C/C++, SQL, JavaScript
Backend: FastAPI, Spring Boot, Django, REST APIs, Microservices, JDBC
Databases: PostgreSQL, MySQL, Oracle, Memcached
Infrastructure: Kubernetes, AWS, GCP, Docker, Jenkins, CI/CD, Airflow
Concepts: Distributed Systems, System Design, DSA, Async Processing, Data Pipelines
AI & Agent Systems: Reinforcement Learning, LLMs, Evaluation, Reward Design, LangChain, AutoGen, CrewAI, Agent-Lightning, MCP

ACHIEVEMENTS

Academic Distinction: JEE Main **99.34 percentile** | JEE Advanced AIR **approx. 9,000**
Competitive Programming: Codeforces **1549** (Specialist, top 15%) | CodeChef **1982** (4-Star, top 5%) | Google Kick Start 2022 rank **1636**
Hackathons: Top **33 of 1,000+** teams (top 3.3%) at Hack In the North HINT-5.0 | **Rank 2** at Hackout '22