

Ayush Kumar Singh

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EDUCATION

Indraprastha Institute of Information Technology, Delhi, India

Bachelor's of Technology - Computer Science and Engineering

August 2020 - May 2024

GPA - 7/10

WORK EXPERIENCE

GEP Worldwide

Jan 2024 – Present

Software Developer | React Native, Redux, ASP.NET, Microsoft SQL Server

Mumbai, India

- Led the integration of the **Field Services** and **Auction** module into the Quantum platform, enabling users to seamlessly manage tasks without the need for a separate application, resulting in a **50%** improvement in operational efficiency.
- Revamping the **Quantum app's architecture**, transitioning to a modern structure that achieved **40%** faster load times, a **30%** reduction in app size, and significantly improved code maintainability.
- Overseeing and maintaining the **Inventory app**, managing bug fixes and ensuring **100%** uptime until integration into the Smart application.

GEP Worldwide [\[Certificate\]](#)

May 2023 – July 2023

Software Engineer Intern | C#, Microsoft SQL Server

Navi Mumbai, India

- Developed and deployed a console application to automate bulk data uploads from Excel to Microsoft SQL Server, reducing manual effort by **85%** and improving data accuracy by **30%**.
- Designed and implemented robust data validation pipelines, ensuring **100%** compliance with data quality standards.
- Coordinated the deployment of the application for internal use by the **Supplier Team**, ensuring a **0%** defect rate post-deployment through rigorous testing in **QC** and **UAT** environments.

IIITD - Ph.D. Management Portal [\[Github\]](#) [\[Video Link\]](#)

Jul 2023 – Dec 2023

Web Developer | ReactJS, Django, TailwindCSS, SQL

Delhi, India

- Designed and deployed a comprehensive **Ph.D. Management Portal**, automating administrative tasks such as student database management, stipend tracking, and exam duty allocation, reducing manual workload by **60%**.
- Engineered the **Exam Invigilation Algorithm**, operational since March 2023, successfully managing **10+ exam seasons**.

Networks Lab, IIITD (Ministry of Rural Development) [\[Github\]](#)

Jan 2023 – May 2023

Researcher | Appium, Java, Charles Proxy, MITM Proxy

Delhi, India

- Automated and enhanced testing for the **LokOS Mobile Application** using **Appium**, effectively identifying performance bottlenecks under varying network conditions
- Proposed and validated solutions such as data compression, resumable uploads, and network-based fragmentation, significantly improving the reliability of data uploads in low-bandwidth environments.

PROJECTS

Distributed and Scalable: URL Shortener [\[Github\]](#)

July 2024

Personal Project | React.js, Express.js, MongoDB, Apache ZooKeeper, Nginx, Docker

- Designed and implemented a distributed system with high availability and fault tolerance, leveraging **Docker** for containerization and **NGINX** for load balancing.
- Developed a scalable architecture utilizing **Apache ZooKeeper** to manage distributed counter synchronization, ensuring efficient URL generation and optimal system performance.

JIRA-AI Agent [\[Github\]](#) [\[Chatbot\]](#)

Nov 2024

Personal Project | Streamlit, Python, Redis, Celery, Weaviate, Ngrok, Unicorn, Azure, Docker, Ollama

- Developed an AI-driven JIRA Agent leveraging historical ticket data and **TinyLlama** as the core language model to automate query resolution and reduce repetitive tasks.
- Implemented webhook-based automation to trigger tasks when a ticket status changes to **"Closed,"** sending basic details to the **Flask** backend.
- Utilized **Celery** and **Redis** for efficient task management and **JIRA REST APIs** to fetch complete ticket data, enabling seamless storage and embedding generation with **Cohere** in **Weaviate**.

OTHER PROJECTS

Portfolio Website: Created a responsive website to highlight skills, projects, and achievements.

3D-Printer VR Model: Created a responsive website to highlight skills, projects, and achievements.

CERTIFICATION AND ACHIEVEMENTS

- Certified in Azure Fundamentals [\[Certificate\]](#)
- Presented the VR model at RIISE 2024, IIIT Delhi's Annual Research Expo. [\[Poster\]](#)
- Leetcode Rating: 1655 [\[Profile\]](#)
- Secured AIR 1421 in JEE Mains (2020)
- Secured AIR 6 in Indian Institute of Aircraft Engineering (2019)