

AAKANKSHA GUPTA

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SUMMARY

Results-driven Software Engineer with 7+ years of experience in designing and delivering scalable, production-grade systems. Proven track record in leading high-performing teams and ensuring robust, high-quality software solutions. Adept in backend development, system architecture, and deployment readiness. Deeply aware that up to 70–90% of software and ML prototypes fail to reach production—often due to scalability and infrastructure challenges—and committed to bridging that gap.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python

Frameworks/Tools: React/Redux, React-native, Angular, streamlit, Docker, Kubernetes, Prometheus/Grafana, Express.js, Flask/Fast API, ollama, Github Actions, Apache Airflow, dbt (Data Build Tool), fivetran, Ansible

Database: SQL, NoSQL, Postgres, BigQuery, S/4 HANA 2023

Concepts: Distributed/Batch Systems, LLM-enabled/Cloud-native app architecture, Data Engineering via ETL pipelines, MapReduce/Fuzzy search, Concurrency, CI/CD, MLOps, Versioning, Vector Embeddings

EXPERIENCE

Hitachi Digital Services

Jun 2023 – Present

Senior Software Engineer

- *Being a part of the same team earlier back in 2016-2019 joined back after completing masters in the Software Engineering.*
- Spearheading integration of LLM capabilities to reason the safety standards of some standard used chemicals in the cosmetic industry. Analyzed the results from 3 different **state-of-art LLMs** and was able to achieve the accuracy of **93.04%** using LLM as a judge.
- Packaging ML models with FastAPIs and build interactive UIs. Design and automate end-to-end ML workflows with MLOps tools
- Developed a mobile application using **React Native** with integrated **OCR** to extract chemical data from images and present safety insights.
- Designed and implemented an **enterprise-grade ETL pipeline** using **Fivetran, dbt, BigQuery, and Apache Airflow** to support ML-driven sales forecasting.
- Leveraged **Fivetran's** connectors, automatic schema mapping, incremental syncs, and data validation; utilized Airflow for orchestration, logging, and alerting.
- Managed AWS deployments, orchestrating services, ingress, and workloads. Used **Prometheus/Grafana** for monitoring, alerting and visualizing system metrics.
- Gathering requirements from the stakeholders and breaking the requirement in small tasks and assigning within the team. This accounts for almost 30% of my day. The remaining 70% actively involved in implementing the features, solving bugs, bottlenecks etc.

SAP Labs

Jun 2022 – June 2023

Software Engineer

- Supported new features, bug fixes for a SAP based custom VS Code Extension (**SAP Guided Development**) used by over 1+ million users across the globe. Tools used **React/Redux, Typescript, Nodejs, Docker, Jenkins**.
- Designed a new VS Code extension to simplify tutorial discovery; adopted **pnpm** for improved disk efficiency, faster installs, and stricter dependency control.
- Built a distributed search platform to index and query **Azure Blob Storage**; orchestrated **batch pipelines** for high-speed lookups.
- Maintained Azure-hosted telemetry to monitor user traffic and inform UX improvements in future releases.

San Jose State University

Aug 2021 - May 2022

Software Engineer

- Designed an application for analyzing the phosphate content today and future in the Pacific Ocean waters for **MLML Labs Monterey, CA**.
- Captured **Raspberry Pie** sensor data using **WebSocket connection**. Decoupled the logic in 2 parts. Backend logic responsible for playing around with the data and thereby creating REST APIs for frontend servers. Used docker-compose to define and define multi-container applications. Used AWS services like RDS, AURORA DB, API GATEWAY, Lambda Functions etc.

Infosys Ltd

Apr 2019 - Aug 2021

Senior Software Engineer

- Designed an SAP deployed application solution for a leading oil supplier using **Microsoft Teams integration**. The application helped ease the collaboration process between different teams of the organization.
- The application helped increase the throughput of the team by **15%** and reduced delays because of the communication gaps by around **40%**. Received Ace Award for the solution.

Hitachi Consulting

Sep 2016 - Mar 2019

Software Engineer

- Worked as an SAP ABAP/UI5 Developer on enterprise reports, interfaces, enhancements, workflows, conversion objects etc.
- Designed a sales tool using UI5, oData Services comprising interactive charts, tables that can help the migration process from old version to newer versions in a user friendly web app. It helped business analyze the implications and impact during the migration process. The tool helped company make almost **\$20 million+** revenue

EDUCATION

Master of Science, Computer Software Engineering

Aug 2021 - May 2023

San Jose State University, San Jose, CA

3.84/4

Bachelor of Engineering, Electronics and Communication Engineering

Aug 2012 - May 2016

Panjab University, Chandigarh, India

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