

Priyam Shah

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Summary

Results-driven Software Engineer specializing in developing scalable microservices, AI-driven solutions, and cloud-native applications. Proven track record in enhancing system performance, optimizing data workflows, and leading cross-functional teams to achieve high-impact results. Experienced in leveraging AWS, GCP, and advanced ML techniques to drive business value.

Work Experience

Data System Specialist, Haven Health Management

June 2023 – Present

- Deployed scalable data management solutions, using **Java** microservices with real-time monitoring (**Grafana, Prometheus**) and an on-premises EMR data lake using **Apache Hudi** and **Spark**, increasing data accessibility by 43% and collaboration by 26%.
- Developed Hotanalytics.ai, an advanced analytics platform on **GCP** leveraging multi-LLM and ML models (e.g., **Llama 3.1, Vertex AI**) along with a **hybrid Knowledge Graph** and **RAG** solution. This organization-specific tool provides secure, accurate insights across structured and unstructured data with 83% query accuracy empowering enterprise-level data analysis.
- Automated alerts on critical **campaign metrics** (e.g., opportunity, leads, inbound volume) across 700+ tracking sources, with **root-cause analysis** saving marketing analysts over 4 hours daily and enabling immediate insights to prevent potential losses.
- Created a Slack-based **Proofreader Bot** for pre-distribution quality checks on content (e.g., brochures, newsletters) to ensure accuracy in grammar, formatting, and company information, saving 20+ hours weekly and **protecting brand reputation**.
- Developed an AI mental health bot with **OpenAI** and **Botpress**, automating lead qualification and boosting engagement by 42%, while integrating a Salesforce-Slack bot to streamline opportunity creation and reduce onboarding time by 65%.
- Optimized content generation pipeline using **multi-agent swarms**, automating end-to-end workflows from script drafting to final distribution while incorporating human feedback, resulting in a 110% boost in productivity and content effectiveness.
- Architected a high-performance **Rust**-based asynchronous audio-transcription service, leveraging **Redis Cluster** for job queuing, **AlloyDB** for data storage and vectorization and **Kubernetes** for auto-scaling, enhancing service reliability to achieve a 99.99% SLA.
- Fine-tuned small proprietary datasets with **XTuner** on in-house servers, deploying it as a chain of AI agents for specialized tasks, enhancing operational efficiency and task accuracy.

Software Engineer Intern, Vertex Pharmaceuticals

July 2022 – May 2023

- Refactored a multi-tenant web application using **Flask** and **AngularJS** for the cell and gene analytics team, achieving a 57% speedup and a 42% **reduction in memory footprint**, which increased user engagement by 22%.
- Devised a **state-of-the-art data pipeline and reporting** for cystic fibrosis assays(experiments), slashing manual processing time by **91.5%** surging operational efficiency, accuracy and speed to insights.
- Instrumental in integrating advanced **hardware solutions** for sample tagging and scanning, boosting assay development by 73%, demonstrating technical prowess in **IoT and medical devices**.

Professional Freelancer, Self-Employed

June 2020 – May 2021

- Managed and accomplished **18 projects**, driving revenue over \$100k: customized solutions to meet unique client requirements, ensuring high satisfaction levels across varied clientele and driving a **33% boost** in repeat business.
- Translated complex business needs into actionable requirements, ensuring **timely project completion**. Proficient in full stack development, leading projects from inception to deployment with a focus on **scalable system design**.

Head of Web Development, Apli.ai

April 2019 - March 2020

- Strategically directed the web team at Apli.ai, shaping pivotal business strategies and steering the team toward organizational objectives resulting in a **21% increase in conflict resolution and revenue**.
- Streamlined **agile product development** as **Scrum Master**, utilizing Atlassian tools; specialized in resource utilization, risk management, and continuous deployment strategies facilitating a **16% reduction** in time-to-market for product.

Projects

RideX - Decentralized ride-hailing app | *ExpressJS, NodeJS, MongoDB, IPFS, Solidity, Web3, Ethereum Blockchain, Hadoop*

- Utilized smart contracts and big data analytics to enhance pricing transparency and privacy, significantly improving the driver and passenger experience in a decentralized environment.

KJSCE Canteen - Distributed Order Processing System | *Flutter, Golang, Kubernetes, Redis, Gitlab CI/CD, Hadoop*

- Created a distributed **Golang REST microservice** to automate order processing in real-time and optimize kitchen workflow for KJSCE College Canteen, reducing manual workload and decreasing customer wait times by 42%.

Education

Master of Science in Computer Science, Illinois Institute of Technology (Chicago, IL)

May 2023

Bachelor of Technology in Computer Engineering, KJSCE (Mumbai, India)

June 2020

Research Work and Certifications

Amazon Web Services Certified Solutions Architect – Professional

June 2024

Certified Product Manager – Brightigo

April 2021

Independent Researcher – 17 Citations – [Google Scholar](#)

June 2019