

SHANKUL VATSA

Staff Software Engineer

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📞 9051449470

✉ Bengaluru

📍 Bengaluru, India

in <https://www.linkedin.com/in/shankul-vatsa/>



EXPERIENCE

Staff Software Engineer

Royal Bank of Canada

📅 April 2025 – Present

📍 Bengaluru

- Leading backend development of a GenAI-powered chatbot using LangChain, PostgreSQL with PGVector, and RAG (Retrieval-Augmented Generation) to deliver contextual and accurate responses.
- Developed an ingestion service to automate and manage updates to the internal knowledge vector store, ensuring real-time accuracy of retrieved content.
- Designed and implemented user feedback mechanisms (thumbs-up/down) for chatbot responses to enable continuous learning and improvement.
- Contributed to architectural decisions, code reviews, and API design for robust and scalable system development.

Vice President (SDE - 3)

Goldman Sachs

📅 July 2020 – April 2025

📍 Bengaluru

- Designed and developed a throttling system to limit the rate of system alerts generated in the trading system. **This helped the trading system from being overloaded during high volume of alerts.**
- Working on feature development and scaling of the electronic (low-touch) trading system. **Goal is to design the high-frequency trading system to handle massive trading volume with low latency.**
- Development of an alerting system using Apache Flink to process orders and generate system alerts based on rules.

Software Engineer

Gainsight Software Pvt. Ltd.

📅 March 2020 – July 2020

📍 Hyderabad

- Worked on a new micro-service development involving a system that consumes data from an external source, joins it with the system data, and manipulates the result as per user requirements.

Software Engineer

Ensim India Pvt. Ltd. (An Ingram Micro Company)

📅 August 2019 – February 2020

📍 Durgapur

- Developed the User Deletion Functionality for GDPR compliance, along with writing its JUnit test cases. Took part in the design discussion and various related meetings with the client for the same.

Associate Software Engineer

Nomura Research Institute Financial Technologies India Pvt. Ltd.

📅 August 2017 – August 2019 (2 Years)

📍 Kolkata

- Development of Enterprise Integration Gateway for handling XML, Swift, and Flat file messages coming from external financial entities.

ACHIEVEMENTS



Scholarship

Indian Oil Merit Scholarship in 2010



Scholarship

Student Merit Scholarship by GAABESU in 2015, 2016 and 2017



Event

Organised an event MATHEMANIA in INSTRUO'16 at IEST, Shibpur premises

TECHNICAL SKILLS

Data Structure & Algorithm

System Design

Java

JavaScript (React)

Python

LangChain

RAG

GenAI

MCP

Low Latency

Apache Flink

Apache Kafka

Redis

MongoDB

PostgreSQL

Spring

Kubernetes

Docker

Prometheus

SOFTWARE TOOLS

Linux (RHEL)

Git

Gitlab/Github

Grafana

CI/CD

IntelliJ IDE

Genkins

Gradle

BPMN

Jira

Confluence

EDUCATION

B.E. in Information Technology, IEST, Shibpur

📅 2013 - 2017

📍 Kolkata, West Bengal

CGPA: 8.68/10

Higher Secondary (12th)

Satyam International

📅 2010 - 2012

📍 Patna, Bihar

CBSE: 87.2%