

Varun Shelke

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EDUCATION

University of Pittsburgh

Master of Science in Information Science | GPA: 3.9

Pittsburgh, PA

Aug. 2024 – Apr 2026

University of Pune

Bachelor of Engineering in Computer Engineering

Pune, India

Aug. 2016 – Jul 2020

EXPERIENCE

AI Engineer

Pitt AWS Cloud Innovation Center

May 2025 – Present

Pittsburgh, PA

- Engineered **GenAI automation pipeline** using **S3, AWS Bedrock OCR + LLM** that eliminated **10 hours/week** of manual data entry for production sports analytics platform, processing 20+ daily practice score images with human-in-the-loop validation.
- Built **scalable SMS campaign system** handling **100K+** messages via **S3, Lambda, SNS/SQS, and Amazon Bedrock**, automating **67%** of customer interactions through **LLM intent detection** before routing high-value leads to human agents.
- Developed semantic **search analytics tool** on **vector embeddings** with **Pydantic** tool calling enabling natural language queries across **1M+** survey rows, **extracting insights** from unstructured feedback.
- Automated infrastructure deployment for 3 production prototypes using **AWS CDK** and **CI/CD pipelines** with security scanning, linting, and **GitOps workflows** for serverless GenAI applications.

Engineer

Nagarro

May 2022 – Aug. 2024

Pune, India

- Led 3-engineer team implementing **Order Management System** using **Spring Boot and SAP Commerce**, reducing order cancellations by **85%** and increasing inventory accessibility by **10x** across 62 fulfillment centers.
- Designed **dynamic fulfillment routing engine** in **Java** that evaluated warehouse inventory, lead times, and product location across **62 centers** to **prevent overselling**, processing **2K-5K orders a day** during peak periods.
- Built automated **order reliability infrastructure** with **CronJobs** and **retry mechanisms** for failed orders and shipping, **reducing manual intervention** across 62 locations.

Programmer Analyst

Cognizant Consulting

Nov. 2020 – May 2022

Pune, India

- Delivered **20+ features** across Fortune 500 e-commerce platforms **Java/Spring Boot** and **SAP Commerce Cloud**, including automated **product import workflows** and real-time inventory integrations with **SAP ECC**.
- Increased **unit test coverage** from **72% to 89%** by implementing comprehensive **JUnit/Mockito** test suites and resolving **SonarQube** code quality issues, improving codebase maintainability for 15-engineer team.
- Engineered **bi-directional** integration between e-commerce systems and **Salesforce CRM** ensuring accurate order and customer data synchronization across enterprise platforms.

ACCOMPLISHMENTS & LEADERSHIP

- Built [diving analytics platform](#) deployed by **Pitt Diving** and garnered interest from **USA Diving** team
- 1st place at [KPMG Cup Showcase](#) for strategic analysis projecting **\$50M** value creation for PPG Industries
- Mentored **2 interns** at AWS Cloud Innovation Center, guiding development of production GenAI applications
- Received **Engineering Excellence** award at Nagarro for outstanding technical contributions and project delivery

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, Typescript, SQL, GraphQL, MySQL

Frameworks: Spring Boot, FastAPI, Node.js, React.js, SAP Commerce Cloud, Fluent Commerce

Cloud & Tools: AWS (CDK, Lambda, S3, Bedrock, SNS, SQS, DynamoDB, End User Messaging), Pydantic, LangChain, LangGraph, Redis, Docker, Kubernetes, Terraform, Git, Jira, Postman, Claude Code, Kiro CLI.