

Deepam Shah

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PROFESSIONAL EXPERIENCE

Senior Software Engineer, Zoom Communications

06/2022 - Present

- **One of the founding engineering members** tasked to develop **Zoom Workplace for Frontline**, helping build the product **from 0 to 1** - contributed to the core backend architecture, data models, and service foundations now powering its shift-based communication and work-management capabilities for frontline workers.
- Architected and led delivery of **Persistent Shift Channels**, auto-provisioning always-on Team Chat and Push-to-Talk channels for **45K+ frontline workers across 120+ enterprise accounts**, with zero breaking impact to 3M+ existing channels.
- Built an **event-driven (Kafka/AsyncMQ) channel lifecycle** and bulk Excel import/export pipeline enabling admins to onboard **5K+ users per upload**, cutting setup time ~95% (4 hrs to under 10 min).
- Designed and shipped **AI-agent and LLM-powered features** - built a retrieval-augmented (RAG) shift-summary and natural-language Q&A assistant over shift and task data, plus the "Google Drive" & "ServiceNow Virtual Agent" chat-apps, driving **1,000+ daily unique users in week one**.
- Engineered the **agent orchestration and tool-calling layer** (prompt pipelines, guardrails, function-calling) backing frontline assistant features, serving **thousands of requests/min** with sub-second p95 latency.
- Hardened multi-tenant security: **remediated 200+ vulnerabilities** surfaced by **Mend, Black Duck, and Prisma** and closed 5+ horizontal privilege-escalation flaws, clearing the service security backlog.
- Raised unit-test coverage **~45% to 85%+**, established team testing standards, and reduced customer-reported defects **~40% QoQ** via production root-cause analysis (NPEs, stale Redis cache, service-invoker failures).
- **Mentored 5+ junior engineers** through onboarding, code reviews, and design guidance, and completed Zoom's **Leadership Academy** to strengthen technical leadership and people-management skills.
- Contributed scalable Java/Spring Boot backends across **Zoom Web Portal and Zoom Huddles** - real-time communication, API integrations, and backend optimizations for a seamless user experience.

Software Developer Consultant, Goldman Sachs

06/2021 - 06/2022

- Designed, built, and tested production-grade REST APIs in **Java 11 / Spring Boot** powering core lending modules on the GS Select platform, **optimizing SQL queries by 35%** to cut latency on high-traffic endpoints.
- Led the migration of loan-servicing microservices from **Java 8 to Java 11** (Spring Boot, Gradle, and Atlas dependency upgrades), **improving throughput by 22%** while reducing long-standing technical debt.
- Engineered new savings-servicing money-movement features, re-architecting existing flows for reliability and backing them with functional-level JUnit test coverage.
- Designed an asynchronous auditing framework to trace the full loan-application lifecycle end to end, **reducing production debug time by 60%**.
- Resolved **10+ high-priority tickets** and mitigated customer-impacting production incidents during on-call rotations, sustaining SLA compliance.

Software Developer Intern, Esri Inc.

06/2020 - 08/2020

- Built a Windows Docker container packaging required Python dependencies to support ArcGIS Notebook Server, streamlining environment setup for data-science users.
- Prototyped a Git-style version-control system for Jupyter notebooks (save/revert/rollback) and exposed headless kernel access via REST endpoints using the Jupyter kernel gateway.
- Applied geospatial deep learning with ArcGIS to perform feature extraction and analysis on aerial and satellite imagery.

Software Engineer Intern, TraceLink Inc.

05/2019 - 08/2019

- Built a Java tool that auto-generates codebase documentation nightly, accelerating developer onboarding and ramp-up; adopted company-wide across all team locations.

- Automated the Android test suite by integrating Jenkins with Appium in Docker, **increasing QA productivity by 40%** and enabling continuous regression testing.

Software Engineer, Apexon (formerly Infostretch Corporation)

09/2017 - 07/2018

- Delivered multiple concurrent software projects end to end - from design through implementation and deployment - using Agile/Scrum methodologies.

TECHNICAL SKILLS

Languages & Frameworks: Java, Python, R, J2EE, Spring Boot, JDBC, JavaScript, REST APIs, HTML5, CSS, Node.js, Docker

AI / ML: LLMs, RAG, Prompt Engineering, LangChain, OpenAI/Anthropic APIs, Vector Databases, PyTorch, OpenCV, Embeddings, Fine-tuning, Semantic Search, Model Deployment, MLOps

Libraries: Pandas, Matplotlib, NumPy

Databases & Cloud: SQL, PostgreSQL, NoSQL, OrientDB, DynamoDB, Redis, AWS (S3, EC2)

Tools: Git, SVN, Jenkins, Postman, JIRA, Tomcat, Maven, Gradle, Swagger, Kafka

Leadership: Mentorship & coaching, technical leadership, cross-functional collaboration, Agile/Scrum, Zoom Leadership Academy graduate

EDUCATION

Ph.D. in Artificial Intelligence (Ongoing), University of the Cumberland 01/2026 - 05/2029

Master of Business Administration (MBA) [3.9 GPA], Campbellsville University 01/2024 - 12/2025

Master's in Computer Science [3.46 GPA], Rochester Institute of Technology 08/2018 - 12/2020

Bachelor's in Information and Communication Technology, Ahmedabad University 07/2013 - 06/2017

PROJECTS

Portfolio Management Tool with Dividend Tracker

- Building an **AI-powered portfolio management web app** that aggregates holdings, tracks dividend income and payout schedules, and surfaces LLM-driven insights and rebalancing suggestions.
- Implemented a dividend tracker with automated ex-dividend/pay-date reminders, yield-on-cost analytics, and projected annual-income forecasting across multiple brokerage accounts.

Language Classifier using Decision Tree and AdaBoost

- Developed a Decision Tree classifier using entropy & information gain as the impurity measure to distinguish English & Dutch text, achieving **98% accuracy**.
- Created a boosted ensemble of decision stumps with assigned weights using AdaBoost, achieving **95% accuracy**.

CERTIFICATION

- Advanced Certificate in Big Data Analytics - Rochester Institute of Technology (12/2020)