

# Abhiram Vadlapatla

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## SUMMARY

Full stack software engineer with 5+ years of experience in building scalable web applications and Agentic AI-driven solutions to deliver impactful user experiences and accelerate business outcomes. Looking for full time software developer positions.

## TECHNICAL SKILLS

**Programming Languages:** Python, Java, Typescript, Javascript, Bash

**Backend Frameworks/Libraries:** Flask, Spring Boot, Nodejs, OAuth2.0, Langgraph, Langchain

**UI Frameworks/Libraries:** React, Angular, NX, HTML, CSS, SCSS, Bootstrap, Webpack, Yarn, Copilot SDK

**Databases:** SQL Server, Prometheus, Elasticsearch, MySQL, Postgres, Big query, SQLite

**Cloud/SaaS:** Terraform, Cloudfoundry, AWS ECS, Docker, Kubernetes, Lambda, AWS Kinesis, Fluent bit, Newrelic, Grafana, Langsmith

**Protocols:** REST, GraphQL, gRPC, WebSockets, Server-Side events (SSE), SMTP

**Certifications:** AWS Machine Learning Associate (2024) Deep Learning Nanodegree (Udacity, May 2021),

## PROFESSIONAL EXPERIENCE

### Goldman Sachs, Software Engineer 3(Vice President):

Jul 2022 - Dec 2023

- Implemented IAM knowledge bot using **React, Socket IO, Flask, Langchain**, and **GPT-3.5 LLM** for 30% faster query resolution.
- Accelerated go-live time to production from 1 week to 48 hours by facilitating instant thematic customizations and streamlining change requests with a **React Drag and Drop** live preview tool for IAM consumers.
- Achieved 100% data transparency and real-time analytics within a 1-minute window by implementing a data ingestion pipeline processing 2GB of data hourly with **Python, Apache Airflow, AWS Kinesis, AWS Lambda, BigQuery, and Grafana**
- Shipped a high-performance **JS analytics library** to production using **web beacon API** for **client-side observability**, boosting dev efficiency 1.5x via **builder pattern** and React hooks for capturing user journey events.
- Enhanced the security profile of the **IAM platform** by integrating **ThreatMetrix** into the **Spring Boot** server, achieving a 30% improvement in fraudulent login detection and abstracting the low-level API to support future integrations.
- Keynote speaker at Goldman Sachs**, sharing insights with 200 developers on Identity and Access Management.

### Philips, Software Engineer 3:

Jan 2018 - Jun 2022

- Awarded thrice for '**Take Ownership**' and '**Eager to Win and Excel**' behaviors, earned promotions from SDE 1 to SDE 3.
- Led development of conversational AI system(**SmartSleep Analyzer**) using **RASA SDK** and **custom NLU/NLP models**, achieving 50% increase in user engagement through advanced **intent recognition** and **contextual understanding**.
- Enforced code quality measures: 100% test coverage(jest), 5% duplication limit, lint checks via git hooks and code reviews.
- Developed a custom **website tracking** and **visitor insights** system generate and process clickstream data using **web beacons, Postgres, microservices** to help prioritize technical functionality, achieving an 80% growth in conversion rate.
- Implemented database integration with **Flask, SQLAlchemy**, managing database migrations using Alembic and Flask Migrate, resulting in a 50% reduction in deployment times and database schema management errors.
- Integrated **New Relic** with Flask app to support APM and latency metrics, achieving a 45% improvement in performance monitoring and issue resolution times.
- Improved developer and third-party adoption of the API services available by 20% by designing an API monetization ecosystem and developing a developer portal using **Kong API gateway** for third-party API consumption.
- Reduced **security** and **traffic control** issues for REST APIs by 70% through rate-limiting plugins, CORS enforcers, and bot detection methodologies by implementing an API gateway using **Kong, custom Lua plugins** and **Honeypot method**.

## EDUCATION

**M.S. Computer Science**, Arizona State University, Tempe, AZ

May 2025

**B.Tech in Computer Science**, Manipal Institute of Technology, India

Aug 2018

## PROJECTS

### Training a Custom [Causal Language Model](#) on Python Data Science Stack Using GPT-2

- Fine-tuned a 124M-parameter GPT-2 model on curated Python data science code dataset, achieving 56.06 perplexity with a custom loss function prioritizing data science tokens and optimized learning rate scheduling.

### [Model Compression for Video understanding models to deploy on edge devices](#)

- Optimized **MobileNet** and **Timesformer** video AI models, achieving 4x size reduction (488MB to 126MB) through int8 quantization and pruning for efficient cloud and on-device performance.

### Competitive Programming Agent with LangGraph and Agentic AI

- Developed an AI agent using reflection, episodic memory, and human-in-the-loop collaboration, achieving a 20.2% pass rate on USACO benchmarks and solving silver-level problems with BM25 retrieval and LangSmith observability.