# **Aayush Gavande**

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## **Education**

MS Computer Science Stevens Institute of Technology

Hoboken, USA 2022-2024

BE Computer Engineering, Honor's: Data Science Savitribai Phule Pune University Pune, India 2018-2022

## **Skills**

- Programming Languages: Python, MySQL, NoSQL, PL/SQL
- Machine Learning: Predictive Modeling, Statistical Modeling, Deep Learning, NLP, LLM, Regression, LangChain
- Data Analysis & Visualization: Tableau, Excel, Pandas, Scikit-Learn, NumPy, Matplotlib, PySpark
- Cloud Platforms: AWS, Google Cloud Platform, Snowflake, Docker, Databricks, Vector DB, Spark, Airflow
- CI/CD: Jenkins, Git, AWS Code Pipeline
- Marketing Analytics Tools: Big Query, Meta Ads, TikTok Ads, Google Ads, Google Analytics

## **Professional Experience**

### Fraud Analyst and Junior Data Scientist Intern, (Experian)

Scottsdale, AZ 07/2024 – Present

- Effectively deployed a refreshed machine learning model to enhance identity theft detection for incoming applications within Experian Consumer Services, resulting in a 22% improvement in model performance compared to previous generations.
- Managed client conversations to demonstrate the value of our Fraud Sandbox solution, empowering clients to compare their data against cross-industry benchmarks enabling clients to identify 12% more third-party frauds.
- Templatized the process for first-party and third-party fraud detection for ECS, reducing manual workload for fraud investigation by 15 hours per week.

### **Data Science Intern,** (Bayer Corporation)

Whippany, NJ 06/2023 - 02/2024

- Productized cost-effective Generative AI model (Python, Google Vertex AI, Palm 2 LLM) for automated creative production, reducing costs by 99% (from \$5,000 to \$50 per creative) and boosting efficiency.
- Significantly improved team efficiency by automating Tableau dashboard analysis through an LLM-based tool, enabling the generation of monthly automated reports.
- Designed and implemented Tableau dashboards for UMM, MTA, and MMM data integration, providing brand teams with real-time insights for data-driven decisions for omnichannel marketing.

#### **Software Developer Intern,** (Persistent Systems)

Pune, India 01/2022 - 06/2022

- Orchestrated and guided a highly collaborative software engineering team in developing scalable software solutions leveraging Java and Spring Boot, resulting in 40% cost savings per quarter.
- Optimized complex business logic with Drools rule engine resulting in 30% less system downtime.

#### Cloud Developer Intern, (Cloud-Plus-plus)

Pune, India 06/2021 - 01/2022

- Achieved AWS certification and implemented CI/CD pipeline for company website, increasing development speed by 15% and reducing downtime by 30%.
- Led application migration to AWS Cloud for hybrid infrastructure, optimizing performance and reducing cost by 27%.

#### **Projects**

#### ECS Identity Theft Fraud Detection | Python, PySpark, Scikit-Learn, SageMaker, Tableau, Feature Engineering

- Created a new machine learning model using CatBoost to detect third-party identity fraud, achieving an 83% fraud capture rate.
- Integrated multiple data assets (Identity Check, Device Attributes, FraudNet, Precise ID) to enhance fraud detection capabilities by 22% compared to the previous model.
- Operationalized the model using Docker, Jenkins and AWS by implementing CrossCore2 ML model deployment pipeline, also optimized the model for Ascend Ops deployment.

### Customer Segmentation for Personalized Marketing | Python, SQL, Snowflake, Tableau, ETL, Pandas, Scikit-Learn

- Analyzed audience insights from different advertising platforms like Google Ads, Meta Ads and TikTok Ads based on customer demographics, transaction data and product usage patterns.
- Developed visualization dashboards using Tableau and performed clustering analysis to identify appropriate marketing strategies for different products achieving 15% higher customer outreach at 20% reduction in cost.

#### Credit Card Fraud Transaction Detection | Python, MySQL, Pandas, Scikit-Learn, AWS, Predictive Modeling

• Built a real-time fraudulent transaction detection system (XGBoost model) achieving 90% accuracy, identifying suspicious transactions and notifying clients for potential loss prevention.

#### LLM Based Q&A Chatbot for Insurance Claims | Python, LangChain, AWS Bedrock, Vector DB, Open AI

 Developed a next generation chatbot utilizing Llama2 LLM and RAG technology for natural language search, reducing information retrieval time by over 50% for customer inquiries.