

SHIVAM TIWARI

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EDUCATION

Florida Atlantic University
Master's, Data Science

August 2023 - May 2025
GPA: 3.56

SKILLS

Python, SQL, Excel, HTML, Statistics, Mathematics, Regression, Power BI, Tableau, ETL, Pandas, Decision trees, Machine learning, CI/CD, Predictive models, Advanced analytics, GCP, Big Data, Vertex AI, MLOPs, Big-Query, PyTorch, NLP, Git.

PROFESSIONAL EXPERIENCE

ADT

Boca Raton, FL, USA

Machine Learning Engineer Intern

May 2025 - Present

- Built a RAG-based system (Gemini Pro, FAISS) to analyze ~6M customer chats, detect churn intent, and surface personalized retention offers reducing cancellations. Presented progress and insights to Customer Support Operations, translating results into actionable strategies.
- Built real-time ML pipelines in BigQuery to personalize chatbot responses and knowledge based using LLMs, reducing agent load and saving ~\$50K/month through improved automation and containment.
- Developing an ML model to score and prioritize marketing leads in close collaboration with cross-functional marketing and sales teams, enabling stakeholders to focus on high-conversion prospects and improve ROI.

Ally Solutions

Boca Raton, FL, USA

Machine Learning Engineer Intern

November 2024 - March 2025

- Contributed to an LLM-powered text summarization pipeline using Hugging Face and GCP Vertex AI, helping improve content relevance by 10% and reduce retrieval latency by 20%.
- Assisted in optimizing NLP model performance and documenting assumptions, evaluation protocols, and metrics, ensuring audit readiness and improving internal review efficiency by 15%.

Amazon

Chennai, Tamil Nadu, India

Data Analyst

April 2021 - August 2023

- Designed and maintained 5+ interactive Power BI dashboards and developed 20+ optimized SQL queries to monitor KPIs, driving a 12% improvement in defect resolution time.
- Analyzed 1M+ rows of operational and customer service data using SQL, Excel, and Python, uncovering journey insights that streamlined workflows and cut reporting time by 30%, while reducing repeat support issues by 18%.
- Partnered with cross-functional stakeholders to translate business requirements into clear visualizations, delivering 15+ executive-ready reports that influenced strategic decisions and improved customer experience outcomes.

PROJECTS & OUTSIDE EXPERIENCE

Deep Learning-Based Pneumonia Detection on AWS

- Built and validated CNN-based model for medical image classification, evaluated with 92% accuracy and AUC metrics; deployed with full observability on AWS; and integrated a Streamlit interface for real-time diagnosis.
- Integrated GitHub for version control and automated updates, streamlining deployment and iterative model improvements. Designed a performance dashboard summarizing model metrics and user interactions to support monitoring and analysis.
- Incorporated Grad-CAM visualizations to explain CNN decisions, improving transparency for healthcare professionals and enhancing clinical interpretability.

Predicting Sleep Quality Using Machine Learning (Hackathon Project)

- Built and deployed ML models (Random Forest, XGBoost) on Fitbit & All of Us datasets, achieving 91% accuracy and RMSE of 5.88 for sleep quality prediction.
- Engineered lifestyle, geographic, and activity-based features to enhance model interpretability and performance. Designed a web application with interactive dashboards and personalized sleep insights. Conducted A/B testing to optimize recommendations and improve user engagement. Built a user-specific dashboard to monitor and visualize individual sleep activity trends over time.