

SANJYOT SATISH AMRITKAR

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EDUCATION

Stony Brook University , Stony Brook, NY Master of Science in Data Science Coursework: Data Analysis, Big Data Systems, Probability, Statistical Learning/Computing, NLP, Data Visualization.	Aug 2024 – May 2026 GPA : 3.7/4.0
Savitribai Phule Pune University , Pune, India Bachelor of Technology in Computer Engineering Coursework: Data Structures, DBMS, AI/ML, Data Mining and Warehousing, Deep Learning, Statistics, IoT.	Aug 2019 – May 2023 GPA : 3.5/4.0

SKILLS

Programming Languages: Java, Python, JavaScript (Node.js, React.js), HTML/CSS, R.
Data Science: Pandas, NumPy, Scikit-learn, TensorFlow, Keras, Seaborn, Matplotlib, Plotly, Pytorch, RAG, LLMs, LangChain, LangGraph, Flask, SQLAlchemy.
Tools & Platforms: Docker, Kubernetes, Jenkins, Git, Jira, OpenShift, Tableau, PowerBI, Jupyter
Databases & Cloud: MySQL, PostgreSQL, MongoDB, Firebase, AWS, Microsoft Azure, Azure AI Foundry.

PROFESSIONAL EXPERIENCE

Stony Brook University: Research Assistant	Jul 2025 – Present
• Leading the development of an AI-driven ED Triage assistant combining React, Python FastAPI, and LLMs to dynamically generate clinical summaries and follow-up questions based on patient inputs.	
• Reduced manual triage questioning load by ~40% through LLM-driven dynamic prompts, easing nurse workload and accelerating patient intake.	
Nextracker: AI Software Engineering Intern	Jun 2025 – Aug 2025
• Spearheaded AI-driven PoCs integrating LLMs (GPT-3.5, GPT-4, LLaMA 3, Mistral) into core products via Azure AI Foundry , enabling LLM-powered search and summarization; boosted response speed by ~30%.	
• Built RAG pipelines using Go and Angular with embedding-based and hybrid retrieval, reducing troubleshooting time by ~40%.	
• Benchmarked cloud vs. local LLMs , delivering a cloud-hybrid-on-prem AI roadmap balancing accuracy and cost.	
Barclays: Software Developer	Jul 2023 – Jul 2024
• Engineered and optimized REST APIs using Java, Spring Boot, and Gradle , integrating AWS (S3, Glue, DynamoDB) for scalable cloud solutions.	
• Developed and automated a React/Spring Boot logging utility, improving API log analysis speed and accuracy by 90% .	
• Strengthened CI/CD pipelines by incorporating SonarQube, Prisma, and JUnit testing for continuous quality.	
Barclays: Software Developer Intern	Jun 2022 – Jul 2022
• Deployed a Java–Spring Boot and React based full-stack vulnerability analysis dashboard .	
• Automated vulnerability tracking through API–database integration, improving remediation response time by 45%.	

PROJECTS

Adult Census Income Prediction using Machine Learning	Apr 2025
• Built a supervised ML pipeline on UCI Census data using Random Forest, achieving 92.75% accuracy and 97.6% recall for high-income class prediction.	
• Conducted EDA using Pandas and Seaborn to extract key income trends, followed by AIC-based feature selection , class balancing (RandomOverSampler), and model evaluation using AUC, ROC, and cross-validation.	
E-commerce Product Chatbot using LLM and RAG	Jan 2025 – Mar 2025
• Created an AI-powered chatbot that answers customer queries about e-commerce products using real Amazon reviews and descriptions, improving contextual understanding and user experience.	
• Constructed a Retrieval-Augmented Generation (RAG) pipeline with FAISS for vector search and an LLM for response generation; implemented a FastAPI backend for embeddings and APIs, and a React based chat interface.	
Fraud Detection using IBM's Differential Privacy Library	Sep 2022 – May 2023
• Explored and applied IBM's open-source differential privacy library, diffprivlib , to train machine learning models for credit card fraud detection, achieving 95% accuracy while incorporating privacy-preserving techniques.	
• Contributed the Isolation Forest algorithm to the library, enhancing the library's support for anomaly detection .	

ACHIEVEMENTS / EXTRACURRICULARS

- President: Indian Graduate Student Association(IGSA), Stony Brook University.
- Python tutor: CSTEP program at Stony Brook University
- Mentor at Society of Women Engineers(SWE)
- Women's Representative at Rotaract Club of Zenith, Pune.