Akanksha Kailas Wagh

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EDUCATION

Master of Science in Data Science — *August 2023 - May 2025*
Stevens Institute of Technology, NJ, USA | Peer Mentor — **GPA:** 3.4/4.0
Coursework: Optimization for Data Science, Applied ML, Time Series Analysis, Deep Learning, Statistical Methods, Generative AI for BIA.

Bachelor of Technology in Information Technology — *August 2019 - June 2023*
Pune University, India| **Outstanding Student Award** — **GPA:** 9.61/10

WORK EXPERIENCE

Data Analyst - Marketing | Compass Group, USA — *February 2024 – May 2025*
- Implemented **real-time Power BI dashboards** which analyzed social media sentiment, engagement, and campaign performance, influence to identify most resonant content and improving content strategy, boosting overall **social shares by 20%.**
- Leveraged **NLP** to analyze customer feedback sentiment, leading to a **25% increase** in retention-focused marketing strategies.
- Performed **A/B tests** to evaluate digital campaigns and promotional strategies, leading to a **15% increase in student engagement**.
- Architected robust SQL solutions to **analyze and track KPIs across CRM** and marketing data, identifying a 25% lift in lead conversion and **enabling precision campaign refinement**.

Machine Learning Intern | Stevens Institute of Technology, USA — *May 2024 – August 2024*
- Conceptualized and implemented an **AI chatbot using GPT-4 and LangChain** for the university IT support desk; the chatbot delivered context-aware support, reducing **support tickets by 20% per month.**
- Automated context switching to **enhance the chatbot's effectiveness in handling complex queries,** increasing resolution accuracy by 30% and contributing as the 'Most Helpful AI Assistant' by the university's IT department.
- Created automated dashboards for **real-time performance monitoring** to analyze chatbot interactions, tracking 4 key metrics like **response time, user retention, accuracy, escalation rate, and sentiment analysis**, driving insights to optimize performance.

Data Engineer Intern | Tata Motors Limited, India — *January 2023 - June 2023*
- Engineered data pipeline using Python (**Pandas, PySpark**) for data analysis to consolidate user engagement metrics into a **PostgreSQL database**, facilitating a **40% faster generation of real-time analytics** reports.
- Built a **Django REST API for Power BI integration**, reducing reporting latency by 35% and enabling real-time data access.
- Designed and deployed **interactive dashboards** in **Power BI** to analyze **user behavior trends**, optimizing **feature adoption** and enhancing **operational efficiency by 28%**.

RELEVANT PROJECTS

Grader Bot [GitHub]
- Led a team of 4 to develop a GenAI grading bot using GPT-4o and Langchain's agentic framework to automate assignment evaluations, reducing teacher grading time by 40% and decreasing burnout among educators.
- Constructed a modular Python codebase integrating OCR and a Streamlit interface for 'Grader Bot', cutting assignment grading time for teachers by 60%, based on testing with 10 teachers.

Forecasting NJ Transit On-Time Performance [GitHub]
- Forecasted NJ Transit bus on-time performance using ARIMA and SARIMA models; conducted stationarity testing, ACF/PACF analysis, and residual diagnostics to generate 12-month predictions with actionable insights.
- Evaluated time series models in R using AIC/BIC, improving forecast accuracy by 18% and identifying seasonal and post-COVID trends.

Self-Generated Soccer Highlights [Published in IEEE]
- Executed ML model for soccer match summarization using an Inflated 3D CNN for 2 factors—action recognition and motion detection.
- Analyzed Soccer Net dataset with OpenCV for data augmentation, identifying and classifying 3 key events: goals, substitutes, and penalties, improving event detection accuracy by 25% and attained 95% accuracy in creating concise video clips.

SKILLS

Data Science: AI/ML, GenAI, LLM, NLP, MLOps, Regression Analysis, Statistical Modeling, Predictive Analytics, Time Series Analysis, A/B Testing.
Programming Languages & Frameworks: Python, R, SQL, C++, Java, Scala, MATLAB, Pandas, Scikit-Learn, TensorFlow, Keras, PyTorch, Django.
Data Visualization & Business Intelligence: Power BI, Tableau, Qlik, Data Visualization, Interactive Dashboards, Data Storytelling.
Cloud & Database Technologies: Azure, AWS, GCP, MongoDB, Oracle, MySQL, PostgreSQL, NoSQL, Data Warehouse, ETL, Data Mining.