SAAD USMANI

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Data-driven professional enthusiastic about leveraging data for real-world change in business innovation and other sectors. Experienced at building inter-departmental relationships to support organizational goals, blending expertise in data science, machine learning, and marketing to transform complex insights into clear, impactful narratives.

Education

Post-Graduate Certificate in Data Science and Machine Learning   2024/09 – 2025/04
Southern Alberta Institute of Technology, Canada

Post-Graduate Certificate in Marketing Management   2023/09 – 2024/04
Fanshawe College, Canada

Relevant projects

1) **In-depth predictive analysis of wildfires across Alberta with dataset from www.alberta.ca:**
   Published a Power BI dashboard using Python on Jupyter Notebook after analyzing data across 16 years and getting insights on why, where, and when wildfires occur.
   Link: Power BI
   - Used Python to preprocess and wrangle dataset of wildfires from 2006 to 2023.
   - developed and maintained ETL pipelines using Azure to push updated dataset for processing
   - Performed feature engineering steps for use in machine learning classification model
   - Created and automated visualizations to tell a story in Power BI, making information digestible for
   - stakeholders (audience)
   - Built and trained time series XGBoost and Long-Short-Term Memory (RNN) models to predict wildfire hotspots and future locations using Geohashing.

2) **AI-powered CV and Portfolio RAG system**
   Developed an interactive chatbot using Retrieval-Augmented Generation (RAG) techniques and trained it on my resume, skills, portfolio, and projects. It allows recruiters and hiring managers to explore my portfolio through natural conversation.
   Link: RAG portfolio
   - Vectorized resume, project PDFs, and visuals using Python and PyMuPDF to structure content for semantic search.
   - Built a RAG pipeline using LangChain and FAISS to retrieve relevant information from embedded document chunks in response to queries.
   - Integrated OpenAI text-embedding-ada-002 to improve the chatbot's response quality.
   - Developed the front end using Gradio and Streamlit, enabling dynamic rendering of text answers, charts, and project images.
   - Tuned the system for real-world recruiting use cases (e.g., "Tell me about your work in Azure" or "Which ML models have you deployed?"), enabling clear responses tailored to hiring needs.

3) **Developed a time series model using SARIMAX to predict future Air Quality Health Index (AQHI) values:**
   - Forecasted Calgary's AQHI using a SARIMAX model with seasonal tuning and weather-based regressors. Used weather and pollutant data (PM2.5, temperature, humidity) to improve prediction accuracy.
   - Applied feature scaling and train-validation splits to improve generalization.
   - Engineered time series features and optimized model using MAE/RMSE metrics and grid search for parameters.
   - Built an interactive Streamlit app to visualize forecasts and provide air quality health tips.

4) **Developed a simple Generative Adversarial Network (GAN) for Social Media Image generation as part of a self-learning project:**
   - Created a deep learning model using PyTorch to generate 128×128 car images with a GAN (Generative Adversarial Network).
   - Collected and preprocessed training data by automating image scraping with Selenium and BeautifulSoup.
   - Improved model results by adjusting training steps, image resolution, and generator-discriminator balance.
   - Experimented with techniques like noise injection and model tuning to boost image clarity and variety.
   - Gained hands-on experience in training loops, saving outputs, and optimizing models.

Professional experience

Marketing Coordinator   2022/12 – 2023/08
Amazing Drivers, Karachi, Pakistan

- Launched automated email campaigns using Zoho CRM that brought in over 15 verified leads.
- Conducted and implemented SEO keyword research and achieved 1st page rankings against 4 keywords.
- Led team designers and developers to implement a bulletproof user experience for the company's driver recruiting software.

Marketing and Communications Analyst   2018/01 – 2020/02
HRSG

- Managed internal communications in the form of a monthly company newsletter. Produced a total of 26 in-house newsletters.
- Successfully planned and executed multiple company Town House events
- Created content for 7 company verticals in various formats including 7 brochures, website and social media content.
- Executed a lead generating print/newspaper campaign for all service lines with a total of 30 print ads across 6 months.
- Organized an event to launch company HRMS software with an audience of over 50 different companies, generating between 10 to 15 solid leads for the product.
- Organized 2 fireside chats in-office with industry leaders to deliver talks on professional and personal growth.

Relevant skills

Technical abilities
- Microsoft: Power BI, Azure, Excel for data modeling and dashboard design
- Programming: Python, PySpark, PyTorch, SQL, GitHub
- Google: Google Analytics, Google Ads
- Adobe: Photoshop, Illustrator, and Premiere Pro
- GitHub for version control and collaborative project development

Other skills
- Well-versed in understanding and managing deliverables for stakeholders
- Experienced in developing, managing, and leveraging inter-departmental relationships to support organization goals.