Yamini Manral

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SUMMARY

Data professional with **6 years** of experience in **data science, advanced analytics, and cloud technologies**. Self-driven problem-solver with a passion for learning and committed to delivering solutions. Seeking opportunities in dynamic, innovation driven environments where data insights drive decision-making and growth.

EXPERIENCE

Data Scientist — Jan 2025 – Present
Humanitarians.AI - Stellis Labs — *Boston, MA*

- Designed and implemented a modular counterfactual reasoning agent, enabling comprehensive "what-if" scenario analysis with logical and probabilistic reasoning capabilities to derive actionable insights for complex business scenarios.
- Analyzed customer purchasing patterns and behavioral data using Python and SQL, developing segmentation models that increased customer retention by 25% through personalized marketing strategies.
- Developed and deployed machine learning models using scikit-learn and TensorFlow for customer behaviour analysis, achieving 92% accuracy in churn prediction and reducing customer attrition by 25%.
- Created collaborative filtering and content-based recommendation models using scikit-learn, analyzing 1M+ customer product interactions to improve product discovery by 40% and average cart value by 30%.

Data Analyst Intern — May 2023 – Dec 2023
Dinosys Infotech — *Boston, MA*

- Led data exploration and anomaly detection on huge datasets, leveraging Python, SQL, and modern ML techniques.
- Built and maintained 15 real-time Tableau dashboards for SOC analysts, implementing custom KPIs and alert thresholds that reduced average incident response time by 40% through improved visualization of security metrics.
- Implemented automated reporting pipelines for security incidents using Python and Tableau, providing actionable insights to stakeholders and reducing manual analysis time by 60% while improving data accuracy.

Data Scientist — Jul 2019 – Aug 2022
Accenture Solutions Pvt Ltd — *Bengaluru, India*

- Architected a production-grade time series analysis framework in Python that automated forecasting across multiple models (SARIMA, Prophet, Holt-Winters), reducing analysis time from days to hours and enabling real-time decision making for business stakeholders.
- Spearheaded sentiment analysis initiatives using fine-tuned RoBERTa/BERT models on customer feedback data, achieving 20% improvement in classification accuracy & enabling data-driven customer experience enhancements across product lines.
- Engineered multi-channel customer feedback analysis system using BERT transformers, delivering 88% sentiment classification accuracy and reducing complaint resolution time by 45%, resulting in improved customer satisfaction metrics.

PROJECTS

BlueBikes Station Analytics Dashboard 2024 - *Excel, CSV, Tableau*

- Extracted interactive insights from 4M+ trip records, highlighting key performance indicators and station performance, route details, and peak demand periods per station, optimizing station availability and resource allocation.

Counterfactual Reasoning Agent - *Python, LLaMa LLM, Ollama, Rich*

- Engineered an AI agent that generates multiple alternative scenarios from a 'what-if' question, evaluates their potential impacts through logical reasoning and MCMC simulations, and synthesizes findings into actionable recommendations.

PDFBot - *Python, Chroma, LangChain, OpenAI*

- Engineered pipeline for document analysis and Q&A using LangChain and Google's Flan-T5 base model, automating information extraction from PDFs, custom token splitting to optimize document indexing & retrieval, boosting efficiency.

SKILLS

Programming Languages: Python, SQL, R, C++, JavaScript, HTML, CSS, Powershell, Bash
Data Science and Analytics: NLP, ML, Tableau, PowerBI, Looker, Alteryx, SAS, MATLAB, AWS SageMaker
Database and Cloud: MySQL, SQL Server, MongoDB, SAP Cloud, GCP, Azure, AWS, Excel
Libraries: pytorch, tensorflow, seaborn, nltk, beautifulsoup, spacy, keras

EDUCATION

Master of Science, Information Systems — Sep 2022 – May 2024
Northeastern University, Boston, MA — *GPA: 3.7/4*
Bachelor of Technology, Computer Science — Sep 2015 – May 2019
SNDT University, Mumbai, India — *GPA: 3.5/4*

- Published paper: *Augmented Reality-Based Visual Dictionary for Elementary Students*, Springer ICSCN, 2019