Manoj Pasunoori

Dallas, TX | manojp0299@gmail.com | 682-405-5556 | linkedin.com/in/manoj-pasunoori-b5673a190 | github.com/manojpasunoori

Summary

Machine Learning Engineer with a strong foundation in data analytics, predictive modelling, and end-to-end ML pipelines. Over 4 years of software engineering experience at TCS and a Master's in Information Systems. Skilled in Python, SQL, cloud tools, C++, Java, Linux, Test Automation, CI/CD, MLOps, AWS Terraform, EKS, IAAS and PAAS and model explainability techniques. Passionate about building scalable AI solutions and driving data-driven impact.

Education

University of Texas at Arlington, TX, USA - Master of Science in Information Systems (Aug 2023– May 2025)
Relevant Coursework: Python Programming, DBMS using Oracle SQL, Business Statistics, Analysis and Design, Web and Social Analytics, Data Warehousing, Data Mining, Data Science, Project Management

Jawaharlal Nehru Technological University, Hyderabad, India - Bachelor of Technology (Aug 2016– May 2020)
Relevant Coursework: Mathematics, Probabilities and Stochastic Processes, Computer Networking, Java Programming, Basic Simulation, C Programming, Instrumentation and Design, Business and Economic Management, Basic Electrical Engineering

Experience

Systems Engineer, Tata Consultancy Services – Hyderabad, IN (Nov 2020 – Present)

• Led feature development and system optimization for Ericsson's COM platform (Product Development), focusing on data-driven diagnostics and performance analytics across FCAPS modules. (C++, Java Development, FT, UT, Integration and Performance Testing)
• Automated large-scale data collection, preprocessing, and reporting workflows using **Python and SQL**, improving data accuracy and reducing manual efforts by 40%.
• Designed and deployed scalable **test frameworks** and **CI/CD pipelines** using **Jenkins** and **Azure DevOps**, enabling rapid and reliable integration of analytics modules.
• Built and validated **predictive models** for anomaly detection and network performance analysis using internal datasets; integrated **explainable AI (XAI)** techniques such as **SHAP** to enhance model transparency.
• Performed system-level data analysis and real-time metric monitoring using **Pandas, NumPy, and custom ETL pipelines**, helping resolve runtime failures and drive model-based diagnostics.
• Over 4 years of experience in Python development with expertise in API/ETL design and AWS Terraform infrastructure.

Projects

Prediction of Accident Severity Based on Weather Conditions
• Description: Designed and deployed an end-to-end MLOps pipeline to predict the severity of road accidents across the U.S., integrating weather, road, and location-based features. The pipeline automates data ingestion, preprocessing, model training, evaluation, explainability, and deployment using CI/CD practices.
• **GitHub:** github.com/manojpasunoori/Traffic-severity-ML
• **Tools & Technologies Used**: Python, pandas, numpy, scikit-learn, XGBoost, TensorFlow, SMOTE, SHAP, PCA, matplotlib, seaborn
• **MLOps Stack:** Git, DVC, MLflow, Docker, FastAPI, AWS S3, GitHub Actions, Heroku (or AWS/GCP), Streamlit
Fake Job Posting Prediction
• Description: Detected fraudulent job posts using NLP techniques and classi cation models.
• Link: github.com/manojpasunoori/Fake-Job-Posting-Prediction
• Tools Used: Python, pandas, numpy, scikit-learn, TF-IDF, SMOTE, XGBoost, matplotlib, seaborn, NLTK, SHAP
Superstore Data Analysis
• Description: Performed EDA and applied ML to derive business insights for sales enhancement and pro tability.
• Link: github.com/manojpasunoori/Super-Store-Data-Analysis
• Tools Used: Python, pandas, matplotlib, seaborn, scikit-learn, Jupyter

Technologies

Languages: Python, Java, C++, Oracle SQL, Linux, HTML, Bash, Shell
Technologies: Docker, Jenkins, Kubernetes, Git, Gerrit, AWS, Jira, Con uence, MS Project, MS Office
Frameworks & Libraries: PyTorch, TensorFlow, OpenStack, JavaScript, Sklearn, Pystack
Concepts: Compiler Design, Machine Learning (Supervised/Unsupervised), Deep Learning, Performance Optimization, Cloud Computing (AWS), FCAPS, DevOps, Agile Testing: Unit Testing, Functional Testing, Integration Testing, Performance Testing, Automated Testing (Selenium, TestNG, PyTest

Extra-Curricular Events

Served as Senator for UTA's College of Business and volunteered at UTA's AI Symposium and Covid Awareness campaigns.
Active member of Dallas AI and recognized as Best Performer at TCS and Silver Medalist at JNTUH Project Expo.
Participated in key events like Microsoft's AI Tour (Houston), Campus AI Day (UNT), and Microsoft Copilot Session.
Volunteered at the UTA Business Analytics Symposium, engaging with industry leaders and peers