Vignesh VN

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PROFILE

Results-driven Data Scientist with expertise in machine learning, statistical modeling, and data analytics. Skilled in using Python, SQL, and Power BI to drive insights for churn prediction, and operational efficiency. Proven track record of deploying AI-driven solutions and automating reporting, reducing manual efforts and improving decision-making.

EDUCATION

Anna University, Bachelor of Engineering Aug 2016 – Sept 2020

- CGPA: 8.14/10
- **Course:** Mechanical Engineering

EXPERIENCE

Data and Business Insights Analyst, NTT Data Services July 2021 - Present

- **Customer Churn Prediction Model for Insurance Policy Retention Optimization:** Developed a customer churn prediction model using classification algorithms, leveraging features like age, smoking status, premium, satisfaction score, and FCR. Optimized with feature scaling and hyperparameter tuning, improving accuracy and enabling targeted retention strategies to reduce cancellations.
- **Inventory Task Forecasting Model for Operational Optimization:** Developed and deployed a regression-based predictive model using Flask to forecast inventory tasks for an insurance client. Engineered data pipelines and applied feature selection to optimize accuracy, enhancing inventory management efficiency.
- **LLM-Powered Sentiment Analysis for Call Center Intelligence and Service Optimization:** Developed and deployed an LLM-based sentiment analysis model to classify customer chat and call sentiments as positive, neutral, or negative. Integrated results into Power BI for real-time sentiment trend visualization, enabling improved service quality and data-driven decision-making.
- **Bank Note Authentication Using Machine Learning and FastAPI Deployment (Link):** Built a bank note authentication system using classification algorithms to distinguish between genuine and counterfeit notes. Deployed the solution using FastAPI and Heroku for real-time verification.
- **Salary Prediction System Using Regression Models and Web Deployment (Link):** Developed a salary prediction model using regression algorithms, comparing model performance across features like age, experience, job title, and education. Deployed the best-performing model via Flask and Heroku, enabling real-time predictions.
- **Executive Account Overview Dashboard for Strategic Planning:** Designed and implemented an Account Overview Dashboard using Power BI to consolidate key business insights and trends. Enabled leadership to make data-driven decisions and improve strategic financial planning.
- **Intelligent Process Automation for Workforce Efficiency Enhancement:** Designed and deployed automation BOTs using Python and RPA tools to streamline workflows, eliminating 1,000 hours of manual effort. Improved process efficiency and enabled teams to focus on high-value tasks.
- **Root Cause Analytics for NIGO Task Reduction and Process Optimization:** Designed automated root cause analysis reports using Python and Power BI to identify NIGO tasks, delivering actionable insights to leadership. Streamlined processes and reduced manual reporting by 15 hours/month, improving operational efficiency.

Technologies

Languages: Python, SQL, HTML, CSS, JS

Frameworks: Scikit-learn, Tensorflow, Keras, NLTK, PyTorch, LangChain, FastAPI, Flask, Heroku