JAGAN N

Machine Learning Engineer

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SUMMARY

Machine Learning Engineer with 2.6 years of experience in building data-intensive business applications, solving architectural complexities and issues. Proficient in analyzing, developing, and testing, that meets specific business requirements and provides substantial results. Skilled in problem-solving, data analysis, and data visualization.

TECHNICAL SKILLS

- **Programming Languages**: Python.
- **Databases:** MySQL, PostgreSQL.
- **Libraries:** Pandas, NumPy, Scikit-Learn, Scipy, Keras, NLTK, Matplotlib, Tensorflow, PyTorch, PySpark.
- **Machine Learning:** Regression, Random forest, boosted decision trees, naive Bayes, SVM, k- means clustering, SVD/PCA, Anomaly Detection, Deep Learning algorithms, Time Series Analysis, Sequence to Sequence learning.
- **Deep learning:** ANN, RNN, LSTM, CNN, Optimization of Algorithm, Regularization and Hyperparameter Tuning.
- **Statistics:** Descriptive Statistics, Inference Statistics, Bayesian Inference.
- **Deployment:** GCP, AWS and Azure.

EXPERIENCE

Machine Learning Engineer - Analysis and Development (May 2022 - Present)
Tata Consultancy Services Pvt Ltd *Chennai, Tamil Nadu*

- Hands-on experience in selecting features, building, and optimizing classifiers using machine-learning techniques.
- Enhancing data collection procedures to include information that is relevant for building analytic systems.
- Processing, cleansing, and verifying the integrity of data used for analysis.
- Having strong knowledge in Statistics, Feature Engineering, Model Selection, Model evaluation, and Feature Scaling to build accurate machine learning.
- Experience in tuning and optimizing ML/DL models for performance improvement.
- Hands on experience working with live projects on different machine learning techniques.
- Having strong problem-solving capabilities.
- Working with most demand industrial technology Framework like pandas, NumPy, matplotlib, nltk(NLP), keras(Deep Learning, tensor flow scikit learn(Machine learning).

EDUCATION

Prathyusha Engineering College, Poonamallee - Thiruvallur Chennai, India
B.E in Mechanical Engineering; CGPA: 7.23 (2016 - 2020)

PROJECTS

Predictive Maintenance | *Python,Pandas, NumPy, Matplotlib, Scikit-Learn, Seaborn.*

- Developed a Python-based machine learning model that identifies opportunities to reduce excessive costs and prevent unforeseen downtime, leading to time savings and increased profitability for the organization.
- Leveraged sensor data and ML to gain insights into failure patterns, enabling targeted maintenance strategies and optimizing resource allocation.
- Implemented a system to anticipate equipment issues before they occur, minimizing unforeseen downtime and ensuring smooth operations.
- Beyond the data points Matplotlib reveals patterns, not just data points. Identify trends, outliers, and correlations to understand equipment behavior.
- Finally the XGB model achieved a validation accuracy of 98.8% and was able to predict the unseen data.
- Predictive maintenance uses data analysis to identify operational anomalies and potential equipment defects, enabling timely repairs before failures occur.
- It aims to minimize maintenance frequency, avoiding unplanned outages and unnecessary preventive maintenance cost.

Loan Approval Prediction | *Python,Pandas, NumPy, Matplotlib, Scikit-Learn, Seaborn.*

- Data Collection and Preprocessing: Gather and clean loan application data, ensuring completeness and accuracy for effective modeling.
- Feature Engineering: Transform raw data into meaningful features, enhancing model performance through appropriate scaling and encoding techniques.
- Model Selection and Training: Choose and train machine learning models like logistic regression or random forests, optimizing hyperparameters for accurate predictions.
- Evaluation Metrics: Assess model performance using metrics such as accuracy and confusion matrix, ensuring alignment with business objectives.
- Model Deployment: Implement and deploy trained models in production environments, ensuring scalability and reliability.
- Monitoring and Maintenance: Continuously monitor model performance, retraining periodically to adapt to changing data distributions.
- Collaboration: Work with stakeholders to understand business requirements and communicate technical findings effectively.
- Minimize Risk: Predict default risk accurately to minimize financial losses for lending institutions.

CERTIFICATIONS

- The Complete Python Bootcamp From Zero to Hero in Python issued by Udemy.
- Machine Learning A-Z : AI, Python & R + ChatGPT Prize [2024] issued by Udemy.
- Data Science Foundations - Level 1 issued by IBM.

PERSONAL

- Father’s Name : Ramachandraiah N
- Languages Known: English, Tamil, Telugu.