ABHIJEET GODE

Data Scientist

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PROFILE

Experienced Data Scientist with over 3+ years of expertise in the field of Data Science and Machine Learning. Proficient in Python, Machine Learning, Deep Learning, NLP and AWS, with a focus on designing, implementing, deploying impactful ML models and proficient using AI tools having understanding of prompt engineering. Skilled in end-to-end ML solutions, data collection, preprocessing, feature engineering, and model evaluation. Strong experience with the Flask web framework for building web-based ML applications. Collaborative team player with excellent problem-solving and communication skills. Passionate about continuous learning and staying updated with the latest advancements in technology. Eager to contribute to innovative projects and drive meaningful impact through data driven solutions.

EXPERIENCE

Data Scientist - BNY Mellon, Pune

2020 - Present

- Orchestrated the entire data science pipeline, encompassing data preprocessing, model development, and deployment, resulting in a significant 25% reduction in maintenance costs and a commendable 15% increase in resource uptime.
- Collaborated seamlessly with cross-functional teams to align data science solutions with core business objectives, achieving an impressive accuracy rate of 87% in predicting creditworthiness, thereby empowering precise decision-making for effective rating portfolio management.
- Successfully implemented and scaled efficient data science algorithms on vast datasets, processing millions of records in real-time. Accomplished a remarkable processing speed of 1000 records per second, enabling swift real-time credit risk assessment and accelerated credit approval processes.
- Cultivated a collaborative and positive work culture by implementing agile data science methodologies, leading to a remarkable 20% reduction in project delivery time and streamlined processes, which improved data science model development efficiency by a notable 40%.
- Assumed a mentorship role by training and nurturing a team. This investment resulted in an impressive 30% increase in team productivity while also contributing significantly to their professional growth.

SKILLS

- Programming Languages: Python, SQL, AWS, Machine Learning, Linux,
- Data Science: Pandas, NumPy, Matplotlib, Seaborn, Scikit-Learn, SciPy, Flask Web, RegEx, win32, openpyxl, Pytesseract, Selenium, PDF2Image, Smtplib, Os, Sys, Boto3
- Machine Learning: Linear Regression, Logistic Regression, Naive Bayes, K-NN, Support Vector Machine, K-Means Clustering, Principal Component Analysis, Decision Tree, Random Forest, Boosting & Bagging Techniques, Ridge & Lasso Regression
- Deep Learning: Neural Networks, ANN, CNN, DNN, RNN, LSTM, Transfer Learning, TensorFlow 2.x, Keras
- Data Processing: NLTK, Natural Language Processing, Pyspark, TF-IDF, Word2Vec, Ngram, Tokenizers.
- AWS: Elastic Compute Cloud (EC2), Simple Storage Services S3. Sagemaker, Lambda, Cloudwatch, CodeDeploy.
- Tools & Technologies: Postman API, VS Code, Jupyter Notebook, Git/GitHub, Power BI, Statistics, Data Analysis, Data Mining, Data Ingestion, Data Visualization.
- Proficient Verbal and Written Communication, Strategic Issue Resolution, Proven Commitment to Delivering Success, Contributive and Cooperative Approach

COMPETENCIES

- Experience using Machine Learning libraries, such as scikit-learn, Seaborn, Matplotlib, SciPy, Pandas, NumPy, RegEx, nltk, etc.
- Proficient in data exploration, modeling, and analysis using various regression and classification machine learning algorithms.
- Ownership of the end-to-end data science model, from data collection to model building and monitoring in production.
- Understanding of the mathematics related to data science, including probability, statistics, and linear algebra, Calculus.
- Deep Learning: Neural Networks, Deep Learning, ANN, CNN, DNN, RNN, LSTM, Transfer Learning, Back Propagation, TensorFlow 2.x, Keras.
- NLP: Text representation techniques, text classification, libraries: nltk, spacy, gensim, textblob, langdetect, googletrans, BOW, TF-IDF, Word2Vec, Word2Index, S2V
- AWS: Elastic Compute Cloud, Sagemaker, CloudWatch, AWS Simple Storage Services S3, Deployment – CodeDeploy, CodePipeline, Multi-cloud environment.

EDUCATION

- Master of Business Administration (Finance) – 8.0 GPA,
  Savitri Bai Phule, Pune University. 2017-19
- Bachelor of Computer Application (Computer Science & Engineering) – 60%,
  Sant Gadge Baba, Amravati University. 2014-17

PROJECT

❖ Financial Credit Rating Model Development for Diverse Financial Services.

Led a project dedicated to developing a robust classification system tailored to BNY Mellon's financial services, aimed at assigning accurate financial credit ratings to various entities, including companies and individuals. The project resulted in a high classification accuracy of 87% on a validation dataset, demonstrating the model's proficiency in assessing creditworthiness across BNY Mellon's diverse financial portfolios.

Roles:

- Orchestrated the comprehensive collection and meticulous preprocessing of extensive financial data, including income statements, balance sheets, and cash flow statements, aligning with BNY Mellon's diverse financial service offerings. Data integration was seamlessly facilitated through AWS S3 bucket storage.
- Engineered a resilient classification model, harnessing the capabilities of AWS EC2 and SageMaker services, tailored to the intricacies of BNY Mellon's financial data. Leveraged advanced machine learning algorithms, including Logistic Regression and Support Vector Machines, to accurately attribute credit ratings to a wide range of financial profiles.
- Achieved an outstanding classification accuracy of 89% on a validation dataset, underscoring the model's effectiveness in predicting credit ratings within BNY Mellon's financial domains. This advancement significantly improved credit assessment precision and supported informed decision-making.
- Successfully deployed the model, realizing tangible benefits by reducing operational efforts by 30% for internal teams and customers. Additionally, it streamlined the review team's workload by 20%, optimizing credit rating processes and resource allocation across BNY Mellon's financial services.
- Collaborated synergistically with domain experts to validate and interpret the model's predictions, generating actionable insights that enhanced risk evaluation and strategic decision-making across BNY Mellon's Investment Services, Alternative Investment Services, Asset Servicing, Corporate Trust, Depositary Receipts, and Treasury Services.

❖ Credit Risk Management Solution for Loan Portfolio Optimization.

Led the development of a comprehensive credit risk assessment model tailored for loan portfolio management within BNY Mellon's Investment Services and Asset Servicing. The project aimed to enhance accuracy and efficiency in credit risk evaluations, facilitating improved decision-making and risk mitigation strategies across the loan and asset servicing domains. Utilizing advanced machine learning algorithms, such as logistic regression, decision trees, and ensemble methods, the model accurately predicted creditworthiness and assessed default probabilities for borrowers.

Roles:

- Spearheaded the creation of an extensive credit risk assessment model, leveraging AWS EC2 and SageMaker services, as well as machine learning algorithms like logistic regression, decision trees, and ensemble methods.
- Engineered a robust classification model, harnessing the capabilities of AWS EC2 and SageMaker services, tailored specifically to the intricacies of BNY Mellon's financial data. Advanced machine learning algorithms, including Logistic Regression, K-NN, and Support Vector Machines, were employed to accurately assign credit ratings across a wide range of financial profiles.
- Achieved a commendable predictive accuracy of 83%, utilizing AWS Lambda and event-driven computing service to ensure precise evaluation of creditworthiness and default probabilities.
- Collaborated closely with risk analysts and portfolio managers to validate model outputs, extract actionable insights, and elevate decision-making processes, leading to effective risk mitigation strategies.

❖ Strategic Analysis of Dynamic Rate Trends for Optimized Financial Decision-Making.

Guided the exploration of behavioral patterns and performance trends exhibited by loans with static rates (fixed interest rates) and flat rates (constant interest rates) over time. Employing linear regression techniques, the project aimed to uncover significant trends, correlations, and relationships between rate types and loan performance metrics.

Roles:

- Led the project in analyzing trends and patterns associated with loans featuring static and flat interest rates, employing linear regression methodologies.
- Curated historical loan data, encompassing interest rates, loan terms, and performance indicators, to establish a robust dataset for in-depth analysis.
- Identified a meaningful positive correlation between static rates and loan performance indicators, substantiated by an R-squared value of 0.75, indicating a robust relationship.
- Revealed a decreasing trend in default rates for loans with flat rates, resulting in a noteworthy 15% reduction in overall default rates.
- Collaborated with domain experts to interpret findings, derive actionable insights, and inform decision-making strategies for loan portfolio management. The outcomes influenced the enhancement of risk mitigation strategies and optimization of loan pricing approaches.

❖ Ticket Segmentation and Optimization for Enhanced Operational Efficiency.

Led the implementation of Snow Ticket Segmentation, a project focused on optimizing ticket distribution by utilizing subject and description-based categorization. The initiative aimed to enhance operational efficiency and customer satisfaction by facilitating efficient ticket assignment to relevant groups, ensuring prompt and effective resolution of customer concerns.

Roles:

- Orchestrated the execution of Snow Ticket Segmentation, streamlining ticket distribution based on subject and description for heightened ticket management efficiency.
- Analyzed ticket data, encompassing subject lines, descriptions, and metadata, to identify common themes and patterns conducive to efficient ticket grouping and assignment.
- Introduced an automated ticket routing system that efficiently assigned tickets to representative groups, resulting in a notable 30% reduction in average resolution time.
- Collaborated closely with customer support representatives and managers to validate the effectiveness of the ticket segmentation approach, actively seeking feedback to drive continuous improvement.
- Elevated customer satisfaction by guaranteeing swift and efficient resolution of customer concerns through streamlined ticket distribution and optimized resource allocation.

DECLARATION

I hereby declare that the information provided in this resume is true, accurate, and complete to the best of my knowledge. I am confident that my skills, experience, and passion for machine learning will be an asset to any dynamic organization.