NAVYA ALAM

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EDUCATION:

Master of Science in Computer Science (4.0/4.0) Aug 2022- Dec 2023
University of North Carolina at Charlotte, USA

TECHNICAL SKILLS:

Programming Languages: Python3 and R (Pandas, NumPy, Sklearn, Matplotlib, Seaborn, ggplot2, NLTK, Caret, dplyr), SAS, Java, JavaScript, C#.

Database Tools and Others: MySQL, PL/SQL, AWS Redshift, PostgreSQL, HTML5, CSS, Angular Framework, REST and SOAP, Spring Boot, Git, PowerPoint, Tableau, Power BI, Postman, Microsoft Excel, A/B testing, Jira, Jenkins.

ML: Data Visualization, Unsupervised Learning, Supervised Learning, Feature Engineering, Reinforcement Learning, Neural Networks, Deep Learning, Data Privacy, Hypothetical Testing.
Certification: AWS Developer Associate.

PROFESSIONAL SKILLS:

Graduate Teaching Assistant | University of North Carolina at Charlotte Jan 2023- Dec 2023

- Provided guidance and support to students in understanding and effectively building **Tableau** dashboards for data visualization projects.
- Assisted students in comprehending data analysis using **Python**, optimizing **SQL** queries and implementing them in data analysis tasks, including the selection of appropriate machine learning models.
- Collaborated on innovative assessments, contributing to the enhancement of project management evaluation, and fostering continuous curriculum improvement.

Application Development Analyst | Accenture Jul 2021- Aug 2022

- Implemented **predictive** maintenance models to forecast equipment failures or maintenance needs, reducing downtime and improving overall equipment effectiveness (OEE) using **Digital Twin**.
- Collaborated with cross-functional teams to identify key performance indicators and created interactive **Power BI** dashboards, facilitating informed decision-making. Streamlined reporting processes, achieving a notable 20% reduction in time spent on data analysis and reporting, enhancing overall operational efficiency.
- Leveraged **Python**, **PySpark**, and **SQL** for in-depth data analysis, extracting meaningful patterns, uncovering crucial insights into production efficiency, quality control, and supply chain dynamics.
- Applied machine learning algorithms to predict production outcomes, contributing to a commendable 15% improvement in production efficiency.
- Employed a range of Python packages, including Pandas, NumPy, IMAPLIB, SMTPLIB, **Selenium**, Beautiful Soup, and Scrapy, to optimize data extraction, processing, and analysis, yielding a 13% reduction in processing time.
- Orchestrated the integration of AWS services, such as **Amazon RedShift**, S3, CloudFront, and **EC2** with Load balancer, leading to a 20% reduction in costs and a 35% acceleration in data processing speed.
- Conducted thorough **data profiling** using Python packages like Pandas and **Dask** to assess data quality, completeness, and consistency.

- Utilized scripting with **SQL** for automated data extraction, transformation, and loading (**ETL**) processes, supporting analytics and reporting functions.

Software Engineer |CAPSLEY Jun 2020- Jun 2021

- Optimized digital environment for automating **Home Loan process**, reducing manual interventions to expedite loan disbursements, reducing processing time from an average of 2 weeks to 3 days.
- Created interactive dashboards and visualizations using **Tableau** to communicate key insights and support strategic decision-making, enhancing customer-bank negotiations and boosting user engagement by 20%.
- Designed and implemented efficient **database schemas**, stored procedures, functions, **triggers**, and packages using **SQL** to meet business requirements and improve data handling.
- Performed extensive **data profiling** and business validation to ensure data quality and accuracy, supporting decision-making processes.
- Developed **customer segmentation** models and marketing analytics, providing actionable insights for targeted campaigns.
- Optimized SQL queries and PL/SQL code to enhance performance and scalability of database systems, resulting in a 20% improvement in query response time. Implemented RESTful **APIs** with **Flask**, enabling secure CRUD operations.
- Integrated Elasticsearch with Python backend, enhancing search functionality and app performance by 20%.
- Performed unit testing with **pytest** and **unittest**, achieving 90% code coverage for early issue detection. Skilled in API testing methodologies, with hands-on experience using tools such as **Postman** and **Swagger** for comprehensive API testing.
- Proficient in Kubernetes monitoring tools like **Grafana** and **Jenkins** for CI/CD pipelines, ensuring smooth software delivery.
- Collaborated with cross-functional teams for efficient **Production Issue Resolution** and **Root Cause Analysis**.

Data Analyst Intern| PUPILFIRST Jan 2020- May 2020

- Developed **Tableau** dashboards to visualize product sales metrics, empowering sales teams with actionable insights for decision-making.
- Conducted **Python** and **SQL**-based exploratory analysis on customer demographics, informing targeted marketing strategies and **product positioning**.
- Contributed to building predictive models to forecast sales trends and identify potential growth opportunities.

ACADEMIC PROJECTS:

Auto Insurance Loss Ratio Prediction

- Led the development of a predictive model for forecasting loss ratios in insurance policy portfolios.
- Conducted data preprocessing, exploratory data analysis to identify key features impacting loss ratios, such as location and coverage amount.
- Utilized linear regression modeling to leverage dataset's linear relationships, enhancing interpretability.
- Evaluated model performance using industry-standard metrics like accuracy, precision, recall, F1 score, and AUC-ROC, achieving exceptional results.

- Anticipated impact includes improved risk assessment and informed premium pricing strategies for insurance providers.

Credit Card Approval Prediction Model Development

- Developed a machine learning model using **PyCaret** to predict credit card approvals based on applicant and credit record datasets.
- Performed feature engineering to create new features and transform existing ones for better model performance. Utilized statistical methods and domain knowledge to select the most relevant features for predicting credit card approvals.
- Evaluated feature importance using techniques such as **SHAP** values to prioritize features for predictive modeling.