BALAJIGOWDA HS

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EDUCATION

THE GEORGE WASHINGTON UNIVERSITY, School of Business **Washington, DC**
Master of Science, Business Analytics *December 2024*

DR. AMBEDKAR INSTITUTION OF TECHNOLOGY **Bengaluru, India**
Bachelor of Engineering, Mechanical Engineering September *2022*

TECHNICAL SKILLS

Programming Languages: Python, R, SQL, Stata. **Analytical Skills:** Machine Learning, Deep Learning, Statistics **Technologies:** TensorFlow, Sklearn, Pandas, NumPy, Matplotlib, Plotly, NLTK, PyTorch **Cloud Platforms:** AWS, Azure **Certifications**: Google Analytics, Azure Data Scientist Associate. **Data Visualization Tools:** MS Power BI, Tableau, Google Analytics, MS Excel, SAS Visualization.

EXPERIENCE

FI CONSULTING (github) **Washington, DC**
Data Scientist/ Student Consultant *January 2024 - May 2024*

- Conducted extensive data preprocessing and cleaning on the HMDA 2022 dataset, handling a comprehensive dataset of 16 million records to ensure data integrity and robustness for analysis.
- Created interactive dashboards using Power BI to visualize key insights into mortgage lending trends, facilitating stakeholder access to over 1.6 million mortgage application records and enabling data-driven decision-making.
- Deployed advanced machine learning models, including XGBoost and Random Forest, achieving an accuracy of 89.06% in predicting loan approvals, effectively identifying systemic biases in lending practices.
- Utilized de-biasing methods such as feature selection and hyperparameter tuning, resulting in a 25% reduction in disparities in approval rates among demographic groups and enhancing the Adverse Impact Ratio (AIR).

COGNIZANT **Washington, DC**
Analyst Intern *April 2022 – October 2022*

- Developed a SQL-based automated data retrieval system, enhancing data collection efficiency by 30% and reducing manual effort.
- Utilized data visualization tools such as Tableau and Power BI to create interactive dashboards, effectively communicating insights to stakeholders and facilitating data-driven discussions.
- Worked closely with cross-functional teams to gather requirements and translate data insights into actionable strategies, improving project alignment.

RELEVANT PROJECTS

BRAIN TUMOR DETECTION USING CNN (github) **Washington, DC**

- Created a Convolutional Neural Network (CNN) using PyTorch to accurately detect brain tumors from MRI scans, enhancing diagnostic efficiency for healthcare professionals.
- Trained the CNN model using cross-entropy loss and Adam optimizer over 50 epochs, achieving a true positive rate of 85% and detailed evaluation through confusion matrices and classification reports.
- Evaluated model performance on a test dataset, demonstrating effective classification of tumor-positive and tumor-negative images, with a final model accuracy of 92% and visualized training accuracy to track improvements over epochs.

LOS ANGELES CRIME DATA ANALYTICS (github) **Washington, DC**

- Examined in-depth analysis of 843,514 crime incidents in Los Angeles (2020-2023) using a dataset from the Los Angeles Police Department, identifying significant crime trends and patterns.
- Utilized statistical methods to analyze crime occurrences by year, quarter, and month, uncovering key insights such as the rise in crime during 2021 and the influence of COVID-19 on crime rates.
- Provided data-driven insights on solved and unsolved crime cases, supporting strategic decisions to improve public safety and enhance law enforcement efficiency.

PREDICTIVE MODELING OF DIABETES (github) **Washington, DC**

- Leveraged machine learning techniques to identify key factors contributing to diabetes onset, utilizing a dataset from the National Institute of Diabetes and Digestive and Kidney Diseases containing health and demographic information.
- Developed and evaluated multiple classification models (Decision Trees, Random Forest, XGBoost) achieving an accuracy of 74.68% with Decision Trees and demonstrating the potential for improved predictions with XGBoost through further tuning.

ADDITIONAL INFORMATION

Leadership: Vice President of the GWSB Business Analytics Club
Event Leader, Intra-college sports fest for badminton & cricket
Leader for blood donation campaign, leading to 460 people donating blood