#### **BALAJIGOWDA HS**

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## **SUMMARY**

Data-driven professional with expertise in machine learning, statistical analysis, and data visualization. Skilled in Python, R, SQL, and advanced tools, committed to transforming data into actionable insights and solutions. Experienced in building predictive models and developing dashboards for data-driven decision-making. Passionate about leveraging data to drive innovation and optimize business performance.

#### 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**

## THE GEORGE WASHINGTON UNIVERSITY

Washington, D.C

September 2024 - December 2024

- Research Assistant
- Worked with the Compustat dataset, merging and cleaning data using pandas and applying fuzzy matching techniques with textdistance to integrate and match data, ensuring accuracy and consistency for research analysis.
- Analyzed the effects of state-level minimum wage increases on hotel performance metrics, including occupancy rates, revenue per available room, and average daily rates, using panel data from 1999–2008.

FI CONSULTING Washington, D.C

Data Scientist

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).

FORTUNE SPIRITS Bengaluru, India

Data Analyst

November 2022 - July 2023

- Designed and developed interactive dashboards to monitor sales performance and trends, utilizing tools such as Excel and Power BI.
- Conducted detailed sales analysis, identifying key metrics and providing actionable insights to improve revenue and operational efficiency.
- Effectively communicated sales performance, insights, and recommendations to stakeholders, fostering data-driven decision-making and aligning strategies with business goals.
- Automated data visualization processes, streamlining the reporting workflow and reducing manual effort by 19%.

COGNIZANT Bengaluru, India

Data 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.

# **EDUCATION**

# THE GEORGE WASHINGTON UNIVERSITY, School of Business

Washington, D.C

Master of Science, Business Analytics

December 2024

**Relevant Coursework:** Machine Learning, Data Management for Analytics, Big Data for International Business, Statistics for Analytics, Optimization, Digital Analytics, Data Visualization, Foundations of AI

# DR. AMBEDKAR INSTITUTION OF TECHNOLOGY

Bengaluru, India

Bachelor of Engineering, Mechanical Engineering

September 2022

Relevant Coursework: Python, SQL, MS Excel, Financial Management, Operational Research, Engineering Management

#### RELEVANT PROJECTS Risk

**BRAIN TUMOR DETECTION USING CNN:** Developed a CNN model using PyTorch to detect brain tumors from MRI scans, achieving 92% accuracy. Trained the model over 50 epochs with cross-entropy loss and Adam optimizer, and evaluated performance using confusion matrices and classification reports.

**PREDICTIVE MODELING OF DIABETES:** Developed and evaluated an XGBoost classification model to predict diabetes onset using health data, achieving an accuracy of 78%. Demonstrated potential for improved predictions through hyperparameter tuning.

LOS ANGELES CRIME DATA ANALYTICS: Analyzed 843,514 crime incidents (2020–2023) from the Los Angeles Police Department, identifying trends and patterns, including a rise in crime during 2021 and COVID-19's impact. Examined crime occurrences by year, quarter, and month, and provided insights on solved vs. unsolved cases to support public safety strategies.

**CUSTOMER CHURN PREDICTION:** Developed Artificial Neural Network models to predict customer churn in the banking sector, improving retention strategies and boosting quarterly revenue by \$1.2 million. Identified at-risk customers and proposed personalized retention strategies, such as targeted incentives and fee waivers, to enhance loyalty and reduce churn

# 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