

JAGADEESHWAR KALYANAPU

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EDUCATION

The George Washington University

Aug 2023 - May 2025

Master of Science, Data Science (GPA: 3.87/4.0)

- **Coursework:** Data Science, Data Mining, Data Warehousing, Machine Learning, Visualization of Complex Data, Cloud Computing, Linux for DevOps, Ethics for Data Science, Algorithm Design

Vellore Institute of Technology

July 2019-May 2023

Bachelor of Technology, Computer Science and Engineering (GPA: 3.33/4.0)

EXPERIENCE

Codebees Technologies Pvt Ltd | Data Science Intern

Jan 2023 - May 2023

- Applied statistical techniques and machine learning models to analyze customer usage data, uncovering trends that improved user engagement by 15%.
- Automated data preprocessing and feature engineering pipelines using Python and Pandas, enhancing efficiency in model development workflows.
- Developed interactive dashboards using Tableau and Matplotlib to visualize KPIs and insights, aiding strategic business decisions.
- Collaborated with backend and analytics teams to integrate predictive models into production systems, ensuring scalable deployment.

PROJECTS

An Approach for Analyzing and Predicting Traffic Accidents in the United States – Capstone Project

- Processed and analyzed 7M+ U.S. accident records using Python and Power BI to uncover severity patterns, environmental risk factors, and high-risk locations through EDA and geospatial clustering.
- Engineered features such as accident duration, road complexity, and rush hour indicators; applied machine learning models (XGBoost, CatBoost, LightGBM) achieving up to 89% accuracy.
- Tuned models using RandomizedSearchCV and visualized key insights via feature importance plots and dashboards, enabling data-driven recommendations for traffic safety.

Crimes in Los Angeles - Data Analysis and Visualization

- Led the analysis of over 932,000 records and developed insights through bar charts, tree maps, and temporal analyses, identifying key crime trends and geographic distributions.
- Conducted in-depth geospatial analysis to identify high-crime areas, uncovering patterns that informed law enforcement resource optimization and patrol strategies.
- Documented findings and effectively communicated complex data insights to stakeholders, supporting policy development and crime prevention strategies using Tableau and Python.

Heart Attack Risk Analysis - Machine Learning

- Conducted comprehensive analysis of patient data and applied machine learning models like logistic regression, Adaboost, and XGBoost to predict heart attack risks with improved accuracy.
- Enhanced model performance using stacking and bagging classifiers, achieving top prediction accuracy scores, including 0.64 with the stacking classifier.
- Provided actionable insights into heart health, contributing to improved predictive models that support prevention and early intervention of heart attacks.

SKILLS

- **Programming Languages:** C, Python, R, Java, Matlab, SQL
- **Data Analysis:** Machine Learning, Data Science, Data Mining, Statistics, Image Processing, Biomedical Datasets
- **Tools And Technologies:** Xampp, Cisco Packet Tracer, HTML, PHP, CSS, Microsoft Azure, Android Studio, Jupiter, Google Colab, GIT, GITHUB, Tableau, AWS, AWS S3, AWS Quick Sight, AWS Lambda, AWS VPC

CERTIFICATIONS

- Microsoft Certified: Azure Data Fundamentals
- Microsoft Certified: Azure Developer Associate
- Salesforce Certified AI Associate
- Accenture North America - Data Analytics and Visualization Job Simulation
- Red Hat-Introduction to OpenShift Applications
- Red Hat OpenShift Administration I: Operating a Production Cluster
- Red Hat Getting Started with Linux Fundamentals

PUBLICATIONS

- ASERNet: Automatic Speech Emotion Recognition System using MFCC-based LPC Approach with Deep Learning CNN. "International Journal of Modelling, Simulation, and Scientific Computing" - Publisher : World Scientific - Status : Published