

Benson Moses Palaparthi

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PROFILE SUMMARY

I am a highly motivated and detail-oriented Master's graduate in Computer Science with a focus on machine learning and data analytics. Skilled in programming languages including SQL and Python, with expertise in data visualization and deep learning models. Experienced in applying machine learning techniques to real-world problems and delivering actionable insights. Seeking roles in data science to leverage my analytical skills and contribute to innovative solutions.

Areas of Expertise: ML Model Optimization | Predictive Modeling | Actionable Insights Delivery | Data Visualization | Sentiment Classification | Model Tuning & Evaluation | Natural Language Processing (NLP) | Performance Monitoring & Logging | Feature Engineering | Cross-Functional Collaborations | Team Leadership | Business Problem Solving

SKILLS & CERTIFICATIONS

- **Programming Languages:** SQL, Python (Pandas, NumPy, Scikit-Learn, PySpark MLlib)
- **Data Visualization:** Matplotlib, Seaborn, Tableau, Power BI | **Databases:** Hadoop, Apache Spark
- **Data Science Techniques & Libraries:** Supervised Learning, Unsupervised Learning, PyTorch, TensorFlow
- **Mathematics for Machine Learning & Deep Learning:** Algebra, Probability, Statistics, Calculus, Matrices
- **Deep Learning Models:** Artificial Neural Networks, Convolutional Neural Networks, Recurrent Neural Networks
- **IDEs:** Visual Studio Code, PyCharm, Jupyter Notebook

EDUCATION

Master of Science in Computer Science, Minor in Machine Learning – Stevens Institute of Technology Jan 2022 – Dec 2023

- Coursework: Fundamentals of Machine Learning and Applications, Applied Machine Learning, Deep Learning, AI

Bachelor of Technology in Computer Science and Engineering – Bharath University Jul 2017 – Apr 2021

- Coursework: Data Structures and Algorithms, Object-Oriented Programming, Data Base Management System

ACADEMIC PROJECTS

Predicting Student Performance Based on Their Exam Marks (ML Project) ([Link](#)) Nov 2023 – Jan 2024

- Deployed an accurate machine learning model, achieving 89% accuracy on a web application, AWS Elastic Beanstalk.
- Analyzed student performances in diverse subjects and day-to-day activities to predict proficiency in mathematics.
- Enabled diverse machine learning models for predictive analytics by sourcing and cleaning datasets from Kaggle.

Customer Churn Prediction Using Artificial Neural Network (DL) ([Link](#)) Aug 2023 – Sep 2023

- Minimized churn rates and cultivated customer loyalty by enhancing predictive model accuracy and implementing effective retention strategies through valuable insights.
- Implemented Logistic Regression and Support Vector Machine (SVM) classifiers for initial predictive modeling.
- Reduced dataset imbalance through the application of the SMOTE technique.
- Conducted thorough data cleaning, dropped irrelevant identifiers, handled missing values, and ensured data integrity for efficient model training.
- Guided the predictive modeling for customer churn through the analysis of iterative, demographics, financial behaviors, and refinement initiatives.

BERT Tweet Sent-Deep-Sentiment-Dive-with-Tweets ([Link](#)) Jul 2023 – Aug 2023

- Enhanced understanding of public opinion by engineering a Twitter sentiment classifier with BERT from Hugging Face.
- Developed and optimized a sentiment classification model by extending BER with dropout and linear layers, fine-tuning parameters for optimal accuracy and computational efficiency.
- Provided real-time insights for strategic social media decision-making by realizing high accuracy in Twitter data and developing a sentiment classification model.
- Improved model performance via advanced text preprocessing, data augmentation, and hyperparameter tuning.

PROFESSIONAL EXPERIENCE

BCG Data Science Job Simulation on Forage | Virtual Internship Jan 2024 - Present

- Achieved an 85% accuracy rate in forecasting customer churn by improving the efficiency of the Random Forest model.
- Delivered actionable insights for strategic decision-making by presenting executive summaries to Associate Director.
- Formulated a strategic investigative methodology and identified crucial client insights while conducting a detailed customer churn analysis for XYZ Analytics.
- Facilitated insightful data visualization and trend analysis through the utilization of Pandas and NumPy in Python.

Stevens Institute of Technology | Notetaker for CS 583 (Deep Learning), Hoboken, NJ Sep 2023 – Dec 2023

- Enhanced Deep Learning understanding for physically disabled CS 583 students by crafting tailored educational materials on multilayer perceptron, backpropagation, stochastic gradient descent, and regularization.

VOLUNTEERING

Volunteer Set-up Coordinator at Hoboken Grace | Hoboken Grace Community Church May 2022 – Present

- Active member of IFI community, participating in social activities and fostering connections among members.