Ananthmanoj Nayak (Data Scientist)

Machine Learning Enthusiast, having around 7+ years of technical experience in Neural Networks, and creating Data Regression models. Strong academic exposure to Data Science with End to End Industry relevant use cases. An action-oriented tech geek eager to explore and be productive

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Ananthmanoj's Work Experience

Data Scientist

Net Connect Globals | *Bangalore, India*
Dec 2024 – Present

- Developed a robust **customer churn prediction model** using **XGBoost, Random Forest, and Logistic Regression**, improving prediction accuracy to **94%**.
- Designed and implemented **RFM-based feature engineering**, enhancing model interpretability and performance.
- Utilized **SQL for data preprocessing** and **Google Colab & Jupyter Notebooks** for collaborative model development.
- Delivered actionable insights to stakeholders, reducing potential customer attrition significantly.
  Tools: Python, SQL, Jupyter, Git, Colab | **Domain:** Customer Analytics, Classification Models

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Data Scientist

iElektron Technologies Pvt. Ltd. | *Bangalore, India*
Nov 2021 – Dec 2024

- Spearheaded design and deployment of **Computer Vision and Multi-Modal ML models** for **ADAS** (Advanced Driver Assistance Systems).
- Built real-time driver behavior analysis models using **EfficientNet-B3 and LSTM**, achieving **85% precision** and **25% reduction** in false alerts.
- Integrated **MediaPipe Face Mesh (468-point landmarks)** for accurate **head pose estimation** under occlusion using IR cameras.
- Developed **CNN-XGBoost hybrid models** for temporal activity recognition with **92% recall** on complex driving scenarios.
- Deployed solutions using **AWS**, **DataBricks**, and **PyCharm**, handling **10k+ data records** from video feeds and vehicle telemetry.
  Tools: Python, TensorFlow, AWS, DataBricks, SQL, Git, PyCharm | **Domain:** Computer Vision, ADAS, Time-Series Analysis

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Data Analyst

Wipro Ltd | *Bangalore, India*
Feb 2018 – Nov 2021

- Promoted from **Project Engineer** to **Data Migration Expert** in the **AI and Data Analysis** vertical.
- Led the **extraction, transformation, and migration** of large-scale client data, aligning with strategic business objectives.

- Conducted **feature extraction & preprocessing** tailored to business use cases, enabling smooth transitions to new systems.
- Engaged in ETL workflows and SQL scripting to streamline data pipelines and analytics tasks.
  Tools: Syniti ETL, Python, SQL, MySQL | **Domain:** Data Migration, Business Analytics

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Projects & Freelance Work

- **Recipe Recommendation System**: Developed a smart assistant that recommends dishes based on available ingredients using **content-based filtering** and **NLP**.
  Tools: Python, Pandas, Scikit-learn

All Skills:

Machine Learning : supervised learning, unsupervised learning,K-Nearest Neighbors, Random Forest, Ensemble Techniques, Decision Tree, Naïve Bayes, SVC, SVM Deep Learning : Neural Network (ANNs), Convolutional Neural Network (CNNs), Long-Short Term Memory (LSTMs), DNN Libraries: Pandas, SciPy, Numpy, Scikit-learn, NLTK, Keras Statistical Analysis : Predictive Analysis, Principal Component Analysis, Dimensionality Reduction, Exploratory Analysis Data Visualization : Tableau, Matplotlib, Seaborn, OpenCV, MS Excel Programming Language : Python, C++, Shell Database Language : SQL, MySQL, Oracle, MongoDB

Education:

- Masters in Data Science (02/2024) Deakins University, associated with Great Learnings
- Post Graduate in Artificial Intelligence and Machine Learning (10/2020) University of Texas at Austin, associated with Great Learning
- Bachelor of Engineering - Computer Science and Engineering (05/2018) Visvesvaraya Technological University

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Hobbies:

- Musician: Plays Tabla
- Youtube: https://www.youtube.com/@am_nayak
- Adventurer
- Like to play football, cricket

Other Projects:

- RECIPE RECOMMENDATION SYSTEM (05/2021):
  To recommend the dishes from the user given set of recipes and help them cook the recipe. Developed a recipe recommendation system using natural language processing and machine learning techniques to recommend dishes based on user-provided recipe ingredients and preferences. Implemented collaborative filtering and content-based filtering methods to generate personalized recipe recommendations. Optimized the recommendation algorithm to improve its performance and reduce the computation time.
- PNEUMONIA DETECTION SYSTEM. (09/2020):
  The goal is to build a pneumonia detection system, assisting physicians to make better clinical decisions or even replace human judgement in certain functional areas of healthcare. Aim is to locate the position of inflammation

in an image. Handling the data with generators and using the transfer learning technique to build the Mask RCNN and ResNet Neural Network model solved the problem. Used techniques of Computer Vision to locate the position of the inflammation. The developed model was about 94.8% percent accuracy score, 85% mean_iou, and a loss of 10%.

- FACE RECOGNITION WITH INTERACTION SYSTEM (07/2020):
  The objective of this project is to build a face recognition system, which detects and recognizes faces. Along with an interactive system that interacts by dialogues accordingly. Used techniques of Siamese Networks and Keras for recognition of the face, CNN to locate the position of the face. Used Text to Speech for and NLP algorithms to make the program talk and convert the user input voice to text. The developed model was about 96.07% accuracy score.