SREENATH VADLAMUDI

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Experience

MobiCom Technologies Private Limited **Dec 2024 – Apr 2025**
Data Analyst - Intern *Bangalore, Karnataka*

TuNiaX (Beta) **Oct 2024 – Present**
Machine Learning Engineer *Bangalore, Karnataka*

Education

Amrita School of Engineering **Sep 2021 – Present**
Bachelor of Technology - Computer Science and Engineering (Artificial Intelligence) *Chennai, Tamil Nadu*

Publications

IEEE International Conference on Artificial Intelligence for Innovations in Healthcare Industries-2023 Paper:mproving Enhanced Clinical Decision Making: Chronic Kidney Disease Detection: Implemented Binary Neural Network, Random Forest, Gradient Boost, and Cat Boost Classifiers to detect Chronic Kidney Disease, combining Nephrology and Machine Learning to improve the classification and early detection of CKD.
Paper to be published in late March 2024. **Tech:** Python, SQL, Machine Learning.

Certifications

- Completed Hacker Rank's Python Certification program, gaining expertise Scalar Types, Operators and Control Flow, Strings, Collections and Iteration, Modularity, Objects and Types and Classes.
- Studied in competitive online classes like AI Builder, MLOps, Cognitive Services, and Machine Learning. developed, managed, and effectively used machine learning models.

Technical Skills

Languages: Python, R, HTML, CSS
Concepts: Deep Reinforcement Learning, Deep Neural Networks, Great Expectations, Bio-Informatics, Data Analysis, Elements of Computing System, Image Processing
Developer Tools: VS Code, Google Cloud Platform, Jupyter, Matlab, Weka
Technologies/Frameworks: TensorFlow, Keras, Scikit-learn, NLTK, Flask, SpaCy, ROS, Heroku, Azure, Nand2Tetris, CNN
Operating Systems: Windows/ Linux(Ubuntu)

Projects

A Unified Approach for Respiratory Sound Classification using Ensemble Model| *Python, VS Studio, Google Colab.* **Feb 2024**

- This study employs machine learning to identify respiratory conditions like crackles and wheezes from annotated audio recordings, using the Respiratory Sound Database and meticulous preprocessing.
- An ensemble model integrating CNNs, GRUs, and Transformers is designed for feature extraction, temporal dependency modeling, and global pattern recognition, enhanced with dropout layers, batch normalization, and attention mechanisms for robustness.
- Rigorous training with early stopping and model checkpointing ensures high performance, validated through comprehensive metrics, setting new standards in respiratory sound classification and advancing healthcare technology.

Brain Tumor Segmentation | *Python, VS Studio, Matlab, Google Colab.* **Feb 2024**

- MRI scans and segmentation masks are collected, followed by preprocessing steps like normalization, resizing, and augmentation to enhance model performance.
- The UNet architecture, with its encoder-decoder structure and skip connections, is trained using optimization techniques like Adam/SGD and loss functions such as Dice Loss or Cross-Entropy Loss, with evaluation based on Dice Similarity Coefficient (DSC) and IoU.
- The model's generalization is tested on a separate dataset, aiding clinicians in accurate tumor segmentation for improved diagnosis and personalized treatment planning.

Stock Market Prediction Using Sentiment Analysis | *Python, VS Studio.* **Jan 2023**

- Developed a sentiment analysis model to forecast stock market trends using natural language processing techniques.
- Achieved an 85% accuracy in predicting stock prices based on sentiment analysis of news articles and social media posts.

- Implemented a user-friendly interface to improve accessibility and user experience for investors by visualizing sentiment-driven market predictions.

Medicare Fraud Detection | *Python, Google Cloud Console, Google Colab.* **Jan 2023**

- Created a machine learning model to identify potential fraudulent trends in Medicare claim data by analyzing patterns.
- Attained a 90% accuracy rate in detecting potential fraud trends, which allowed healthcare providers to save a substantial amount of money.
- Reduced processing time by 95% by implementing data preparation techniques to handle large volumes of data.

Vehicle Number Plate Detection | *Python, Open CV, VS Studio.* **Nov 2022**

- Designed a reliable computer vision system for real-time number plate identification and recognition using OpenCV.
- Reliable performance on the road was ensured by achieving an excellent 87% accuracy in number plate detection under variable light exposure conditions and vehicle speeds.
- Enhanced security and monitoring capabilities by integrating the number plate detection system with surveillance systems to automatically identify cars.

SNMP Simulation Project (Network Management) | *Python, MIB, VS Studio* **May 2022**

- Deployed a thorough SNMP simulation environment to mimic real-world network conditions, enabling in-depth testing of protocols and network management solutions.
- Optimized SNMP-based protocols for effective network administration and monitoring, leading to better resource usage and an 43% decrease in network outages.