Hitesh Reddy Buereddy

929-498-6356 | buereddyhiteshreddy28@gmail.com

Skills and Frameworks

Languages: Python, C++, C, Java, HTML, CSS, JavaScript, MySQL, R, Assembly language, Arduino, Embedded C, GIT
Applications/Technologies/Tools: Django, Django Web framework, AWS, Jenkins, Notion, JIRA, Postman, Computer Vision, Informatica, StarUML, React Js, Docker, Jupyter NoteBook, Visual Studio Code, Unified Testing Automata, Slicer 3D, Insomnia, GitHub, MongoDB, Spark.
Machine learning & DL: Tensorflow, CNN, Transformer, LSTM, NeuralNetworks, Optimization& Evaluation techniques.

Experience

Software Developer | *Emerging Computer Arena (ECA)* **September 2021 - August 2022**

- Designed and implemented a responsive web application using **React.js** for the front end and **Django REST API** for the back end. Improved UX by **optimizing query performance and enhancing page load times**.
- Deployed the website using third-party applications, ensuring smooth integration between front-end and back-end systems for optimal performance.

Education

New Jersey Institute of Technology **September 2023 – May 2025**
Master of Science in Computer Science **(4/4 CGPA)** New Jersey, USA

Sreenidhi Institute of Science and Technology **July 2019 – June 2023**
Bachelor of Science in Computer Science **(3.51/4 CGPA)** Telangana, India

Projects

TimeFlexTrader | *Transformer, LSTM, NeuralNetwork* **September 2024**

- Developed hybrid deep learning models (LSTM & Transformer) for stock price prediction with **96% R^2 and minimal RMSE**.
- Enhanced predictions using **rolling statistics and volatility metrics**.
- Built a data pipeline for preprocessing and normalization to optimize forecasting performance.

Little Lemon Website | *ReactJS, Django, REST API* **January 2024**

- Built a full-stack web application for a restaurant with **ReactJS & Django**, enabling menu browsing and online reservations.
- Implemented user authentication via **Django REST Framework (DRF)** with registration, login, and session management.
- Boosted front-end performance using **React Hooks and Context API** for seamless interactions.

Cardiopathie | *CNN, Image Processing* **February 2023**

- Created a **two-step neural framework** leveraging **U-Net and a Spatial-Configuration network** to segment seven heart substructures from **Contrast-Enhanced Cardiac CT (NIFTI)** images.
- Reached an **87.63% Dice Similarity Score**, optimizing segmentation accuracy with techniques like **learning rate scheduling and dropout**.
- Managed large-scale medical imaging data with **TensorFlow**, ensuring efficient processing and training in Jupyter Notebook using Python and associated libraries (Numpy, Scikit-learn).

Agriprotech | *CNN, Flask, HTML, Jupyter Notebook* **April 2022**

- Developed a **Build a Convolutional Neural Network (CNN)** for predicting plant diseases based on leaf characteristics, achieving an **accuracy of 89.9%**. Integrated the model into a web application, providing users with disease predictions and suggestions for appropriate medicines and pesticides.
- Integrated the model into a web application using **Flask and HTML**, providing users with disease predictions and suggestions for appropriate medicines and pesticides.

Speech Emotion Recognition | *Python, Jupyter Notebook* **January 2022**

- Implemented a **multi-layer perceptron**that takes audio as input and can detect the mood of a person.
- Utilized **Librosa** to extract audio features such as **Mel-frequency cepstral coefficients (MFCCs)**, which were used as inputs for emotion classification.Optimized the **log-loss function** to classify eight different emotions. The average model's **accuracy achieved was 87.9%**.

Certifications

- AWS Cloud Foundation by Amazon Web Services Training and Certification
- Meta Full Stack Engineer Certificate by Meta
- AWS Machine learning Foundations by Amazon Web Services Training and Certification
- Machine Learning A-Z™: Hands-On Python & R In Data Science by Kirill Eremenko
- Neural Networks and deep learning by DeepLearning.AI