SIBI VISHTAN THIRUKONDA

vishtan.me | (609)233-2195
thirukonda.s@northeastern.edu | linkedin.com/in/vishtan

EDUCATION

Northeastern University, Boston, MA — Expected May 2025
Khoury College of Computer Sciences — GPA: 3.5/4.0
Data Science, Master of Science
Related Courses: Supervised Machine Learning and Learning Theory, Database Management systems, Algorithms, Time Series Geospatial Data Sciences.

TECHNICAL SKILLS

Machine Learning/Neural Networks: SVM, CNN, DenseNet, Time Series, Physics informed Neural Networks.
Activation Functions: ReLU, Softmax, PAF, tanh, Swish, sigmoid.
Data Analytics: Pandas, NumPy, Selenium, BeautifulSoup.
Database Tools: MySQL, MongoDB, UML, Entity Frameworks.

EXPERIENCE

Lennox International, Chennai, India — August 2022 - December 2022
Individual Contributor - 1

- Collaborated with cross functional team to integrate **Alexa and Apple HomeKit services** into next-generation thermostats, resulting in a *30% increase* in user engagement and a *20% decrease* in support requests.
- Provided HVAC stability protocols using data visualization, resulting in a *15% increase* in system stability.
- Initiated to develop and implement new features for controlling HVAC systems via smartwatches and their complications, enhancing user experience.
- Automated software modules using CMake, reducing **development time by 50%** and **increasing productivity by 30%.**
- Handled internal software and alert messaging API, **ensuring 99.9% uptime.**
- Demonstrated expertise in working with Linux Subsystems on Windows, RTOS, and STMP32DM microcontrollers.

PROJECTS

BIRD CLEF SOUNDS | Python: Pandas, NumPy, Plotly, Folium — Jan 2023 - Present

- Developed and owned machine learning model to accurately identify *Eastern African bird species by sound*, resulting in **90%** accuracy.
- Implemented *passive acoustic monitoring (PAM)* and analytical tools to provide a cost effective and feasible method for conducting bird biodiversity surveys, reducing survey costs by **50%**.
- Significantly increased the spatial scale and temporal resolution of surveys, enabling conservationists to explore the *relationship between restoration interventions and biodiversity more comprehensively*.
- Improved the accuracy of bird species identification, allowing for a more precise assessment of the conservation status of endangered species.
- Enhanced the efficiency of bird biodiversity surveys, resulting in a **70%** reduction in survey time and an increase in the number of species surveyed by **40%**.

CIFAR - 10 | Python: TensorFlow, Pytorch, Keras | Activation Functions: ReLU, Softmax — Jan 2023 – Apr 2023

- Trained **Convolutional Neural Networks (CNN)and Densenet Convolution** on the CIFAR-10 dataset, consisting of 60,00032 x 32 colour images, to classify images into 10 different classes.
- Achieved **88%** accuracy after approximately **400 epochs**, demonstrating expertise in hyperparameter tuning and model optimization for *CNN*.
- Further improved the model's accuracy to over **98%** using the Densenet Convolution technique, showcasing proficiency in implementing cutting-edge deep learning methods.
- Showcased ability to handle large datasets and leverage advanced techniques to achieve *state-of-the-art performance in image classification and generation*.

Chicago Cyclist Bike Share Analysis | R, Tableau — Aug 2021 – Apr 2022

- Developed a predictive model that accurately forecasted annual membership signups, resulting in a **20% increase** in membership acquisition.
- Leveraged dataset acquired through *Google API* to compare the usage patterns of casual riders and annual members of Cyclist bikes in Chicago.