BANUREKHA VAITIANADIN

banurekha.mala@gmail.com | (682) 367-0774 | https://www.linkedin.com/in/banurekha-vaitianadin

PROFILE SUMMARY

- A recent engineering graduate with skills and knowledge in **Artificial Intelligence**, **Machine learning, and Software Development.**
- Always looks forward to learning new things, able to adapt easily and possess effective time management skills.

WORK EXPERIENCE

Software Engineer Intern at **UHV Technologies, Texas.** July 2020 - Present

- **Color Sorting -** Implemented a model to classify metal pieces based on pixel values of an image using OpenCV.
- **Smart Feeder -** Built a uniform spacing algorithmic model to constantly feed the metal pieces to conveyer using Tensorflow object detection API, OpenCV and Faster R-CNN object detection.
- **Classification and Clustering -** Implemented live image classification and clustering model using Jetson Nano Developer Kit Worked with various TensorRT models on Linux Ubuntu 20.04 to find out the optimal model providing best accuracy with less inference time.

EDUCATION

Master of Science in Electrical Engineering. Aug 2018 - May 2020
The University of Texas at Arlington, Texas. **GPA: 3.6**

Bachelor of Technology in Electrical and Electronics Engineering. Aug 2014 - May 2018
Pondicherry University, India. **CGPA: 8.8**

TECHNICAL SKILLS

- Python, C, C++, HTML5, CSS3, PL/SQL, JavaScript, Python ML libraries (Keras, Tensorflow, TensorRT, numpy, pandas, matplotlib).
- **ML Algorithms** (kNN, Naïve Bayes, Random Forest, SVM, SVR, Decision trees, linear and polynomial regression, logistic regression), ML Techniques (NLP, Regression, Classification, Neural Networks, Deep Learning).
- Anaconda**,** Matlab, R studio, Google Co-labs, CUDA, PLC, GitHub, AWS Cloud (Beginner).

RELEVANT PROJECTS

- **Implemented Neural network models** - Used steepest descent and conjugate gradient methods to build model for classification and approximation. Built single layer, multi-layer **Convolutional neural networks** model using **Keras**. Some of the projects done are character recognition, coin vs scrap recognition and transfer learning.
- **NLP - Sentiment analysis of phrases/reviews** (**Naive Bayes**, Support Vector Machines, and **CNN**). Worked on a machine learning project to analyze the movie reviews data set and created a model that will learn to tell whether the review is positive, negative or neutral.
- **Control system based** - Implemented extended **Kalman** filter to find the effects of noise in a system using Simulink (MATLAB). Worked on system identification and estimation tools and neural estimator tools.
- **Signal processing** - Implemented projects related to the fields of digital signal processing and statistical signal processing. Highlighted ones are designing filters in Matlab and Simulink. Worked with DSP system toolbox in Matlab.
- **Cloth Ironer and Foldmate -** To iron and fold a saree by just pressing a button. The instructions are fed through Programmable Logic Controller (PLC). **This project** got selected for **quarter finals of IICDC 2016** conducted by Texas Instruments Inc. in collaboration with Department of Science and Technology.

ACHIEVEMENTS AND CERTIFICATIONS

- Winner of image processing and neural networks laboratory (IPNNL) scholarship at UTA under Dr. Michael T Manry.
- Machine learning Certification from Udemy.
- Machine learning Practical workout from Udemy.
- Getting started with AI on Jetson Nano from Nvidia Deep Leaning Institute.
- The Complete Python course form Udemy.