# Nakka Chakradhar

Potential intern

## **Education**

2016-2020 (expected): **BTech, Electrical Engineering**; Indian Institute of Technology (Hyderabad)

Currently pursuing Bachelor of Technology, third year and Honors specialization in Electrical Engineering.

Current CGPA - 8.8

2014-2016: Intermediate Education; FIITJEE Saifabad Campus (Hyderabad)

Got a fee waiver of 60% after an All India entrance test  $\label{eq:cumulative} \text{Cumulative marks} \, - \, 981/1000$ 

2010-2014 : **Primary Education**; Little Flower High School (Hyderabad)

Consistently scored the highest in my peer group.  ${\sf CGPA} \, - \, 9.7$ 

# **Work Experience**

2018 : Summer Internship; NemoCare (CFHE - IIT Hyderabad)

Took up an internship as an IoT developer. Worked on a module to collect and transmit Used Arduino IDE and open-source I2C libraries for the same

## **Projects**

### Facial Recognition with OpenCV, DLib and a flavor of FaceNet

Implimented a real-time face recognition algorithm capable of tagging faces in Images as well as videos. Each frame was processed with OpenCV + pre-trained Caffe model to locate faces and then recognize them.

- Achieved 98% accuracy on a small custom made dataset.
- Face recognition on videos was achieved at 24 FPS. The input was a 60FPS capable 720p
  webcam
- GitHub repo

### Gait recognition with Keras

Implimented a gait-recognition deep-net by cascading two networks - HumanPoseNN and GaitNN.

- Achieved an accuracy of 92.8%
- GitHub repo

### **Lung Tumor Segmentation**

Worked on segmentation of lung tumors on DICOM images as a part of IEEE VIP-CUP problem statement (VIP-CUP 2018).

#### Inter IIT Tech Meet 2017

Worked on the Soldier Support Problem statement offered by DRDO. The problem statement involved 4 sub problem statements

- Gesture Recognition: Made a functional gesture recognition module attached to a glove, capable of capturing any hand movement in 3-D space. This was a part of the Inter-IIT Tech Meet 2017 problem statement offered by DRDO
  - The module could guess 39 out of 43 gestures specified by DRDO, with probability 1
- AD-HOC Localization: Implemented localization of Raspberry PIs in an Ad-hoc network to locate and pin- point any device in the network.
  - The module was capable of tracking nodes in a radius of 100m in closed room environment and around 200m in an outdoor environment, to an accuracy of 15cm.

#### **Smart Meter**

Made a working prototype of a smart energy meter capable of sending and receiving data to a server. It is scalable to take up the task of analysing the power consumption of an entire locality as a whole and monitor power theft in the grid.

## **Technical Experience**

## Machine Learning and Deep Learning Frameworks

- Tensorflow
- Keras
- Scikit-learn

### **Programming Languages**

- Python (Proficient)
- C (Intermediate)
- Bash
- Latex
- Octave

**Related Coursework** I've undertaken courses in Introduction to AI and ML, Representation Learning, Data analytics, Random process, Linear Algebra, Digital Modulation Techniques, Information Theory, Digital Signal Processing, IoT and persued mini-projects in the same

## **Achievements**

- Human Languages:
  - English (native speaker)
  - 。???
  - This is what a nested list looks like.
- Random tidbit
- · Other sort of impressive-sounding thing you did

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