# Nakka Chakradhar

## Education

2016-2020 (expected)

**BTech, Electrical Engineering**; Indian Institute of Technology, Hyderabad

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

Current CGPA : 8.86

2014-2016

**Intermediate Education**; FIITJEE, Hyderabad

Cumulative marks : 98.1%

2010-2014

**Primary Education**; Little Flower High School, Hyderabad

CGPA : 9.7

## Projects

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

Implemented a real-time face recognition module on web-cam footage

* Achieved 98% accuracy on a custom made dataset. Also achieved live face recognition on 720p webcam feed.
* [GitHub repo](https://github.com/chakri1804/Face-Gait_recognition)

**Gait recognition with Keras**

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

* Achieved an accuracy of 92.8%
* [GitHub repo](https://github.com/chakri1804/Face-Gait_recognition)

**Lung Tumor Segmentation**

Worked on segmentation of lung tumors on DICOM images as a part of IEEE VIP-CUP problem statement (VIP-CUP 2018). Secured 6th position in the same.

**Inter IIT Tech Meet 2017**

Worked on ‘Soldier Support’, a problem statement offered by DRDO. 7th position among all IITs.

* Gesture Recognition: Made a functional gesture recognition module attached to a glove, capable of capturing any hand movement in 3-D space.
  + 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 pinpoint 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 outdoor environment.

**Smart Meter**

Made a working prototype smart energy meter capable of tracking energy consumption and relaying it to a server in real-time.

## Work Experience

2018

**Summer Internship**; NemoCare (CFHE - IIT Hyderabad)

Interned as an IoT developer. Worked on a module to collect and transmit health data of infants to a single hub.

Used Arduino IDE and open-source I2C libraries.

2018

**Winter Internship**; Hexagon Capability Center

Worked on point cloud segmentation using PointNet architecture and tested the feasibility of transfer learning.

2019

**Summer Internship**; Philips Innovation Campus (Bangalore)

Worked on risk models for medical applications, especially RISK SLIM and implemented the same using open-source non-linear optimisation tools with Python.

## Technical Experience

**Machine Learning and Deep Learning Frameworks**:

* Tensorflow
* Keras
* Scikit-learn

**Python Packages**:

Numpy, Scipy, Pandas, Matplotlib, PIL, OpenCV

**Areas of Interest**:

Machine Learning and Deep Learning, Computer Vision, Image and Video processing, GANS

**Related Coursework**:

I’ve undertaken courses on Introduction to AI and ML, Representation Learning, Video Content Analysis, Data Analytics, Random process, Linear Algebra, Digital Modulation Techniques, Information Theory, Digital Signal Processing, IoT and pursued mini-projects in these areas.

[GitHub Repo](https://github.com/chakri1804)

## Achievements and CCA

* Selected for the KVPY programme and was eligible for KVPY scholarship
* Megathon 2k17 Runners-up (Hackathon conducted at IIIT Hyderabad) for our Smart Power Meter project
* Secured AIR 2015 in JEE-Advanced 2016
* Co-ordinator for Elektronica - the Electronics Club of IIT Hyderabad
* Worked as Teaching Assistant under Dr. Sushmee Badhulika

[ee16btech11022@iith.ac.in](mailto:ee16btech11022@iith.ac.in) , [chakri1804@gmail.com](mailto:chakri1804@gmail.com) • [github.com/chakri1804](https://github.com/chakri1804)  
+91 8500584109 • +91 9398941169 • DOB: 18/04/1999  
Address - 17-1-388/P/82, Purnodaya Colony, Saidabad, Hyderabad