Nakka Chakradhar

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

Cumulative marks – 981/1000

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

Consistently scored the highest in my peer group.

CGPA – 9.7

Projects

Facial Recognition with OpenCV, DLib and a flavor of FaceNet

Implimented a real-time face recognition on Web-cam footage

- Achieved 98% accuracy on a custom made dataset.
- Face recognition on videos was achieved at 24 FPS. The input was a 60FPS capable 720p web-cam
- **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.
    - 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.

Smart Meter

Made a working prototype of a 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)

Took up an internship 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 for the same

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.

GitHub Repo

Achievements and CCA

- Got selected in 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 (Electric Circuits course)

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