



AAYUSH GOYAL

C-323 , IIT Hyderabad, Kandi, Sangareddy, Telangana, India, 502285

ee18btech11001@iith.ac.in ◊  aayush2710 ◊ 

EDUCATION

Indian Institute of Technology, Hyderabad

July 2018 - Present

Bachelor of Technology - Electrical Engineering

Present CGPA - 8.37/10

Related Coursework : Internet Of Things, Drones, AI & ML, Algorithms, Statistical Learning, Information Theory, Digital Signal Processing, Probability & Stochastic Processes, Linear Algebra, Wireless Communication, Digital Modulation, Digital Design, Analog Design, MOS Devices

Mount Carmel School Dwarka, New Delhi

April 2016 - May 2018

Higher Secondary School

Overall Percentage: 93.60

RESEARCH PROJECTS

Estimating network performance using GNN

July 2020 - Present

Under Dr Sai Dhiraj Amuru (Department of EE, IITH)

- Working on a GNN algorithm that estimates the resulting per-source-destination mean per-packet delay given a network topology and its configuration.
- Working for submission to **GNNet Challenge 2020 in ITU AI/ML in 5G Challenge**.

Wireless User Localization

February 2020 - Present

Under Dr Sai Dhiraj Amuru (Department of EE, IITH)

- Working on a **Self-Supervised Learning** algorithm that can determine the position of a user, based on estimated channel frequency responses between the user and an antenna array.
- Working for submission to **IEEE CTW 2020 Data Competition & EE Independent Project** in 4th Semester.

Graph Attention Networks

December 2019 - March 2019

Under Dr Manohar Kaul (Department of CSE, IITH)

- Worked on improving the performance of Graph Attention Networks in node classification problems.

WORK EXPERIENCE

REPAYR, Hyderabad

September 2019 - November 2019

Software Development Intern

- Worked on testing and development of **Repayr android application**. This app provides the convenience of booking vehicle repair/service from anywhere by assigning it to the nearest vendor/mechanic. This follows an easy step process with options to track your repair service.

TECHNICAL STRENGTHS

Software & Tools

Pytorch, Keras, Vim, L^AT_EX, Android Studio, Matlab, Git

Programming Languages

Python, C/C++, Java

Interests

Computer Vision, Graph Networks, Wireless Communication

PROJECTS

Independent Projects (*For Self Learning*)

- Implemented various CNN, GAN & RNN models using Pytorch and Tensorflow
- Worked on image captioning on Flickr 8K dataset
- Implemented text generation based on an author's writing style using LSTM.
- Designed a physical activity monitoring device assisted with an android app
- Implemented various ML algorithms on Regression, Classification, Clustering, Reinforcement, Associated Rules, etc from scratch.

Car Damage Detection (*May 2020*)

Aim : Implemented a deep learning algorithm(YOLO based) that detects dents and scratches on exterior of a vehicle. Compressed existing networks to make it suitable to be run on any standard smartphone saving the expenses of a dedicated server.

IITH Dashboard (*June 2019*)

Aim : Designing a **one stop destination for IITH Students**. The app displays Mess Menu, Bus Schedule, send lecture reminders and matches people for cab sharing.

This app is being actively used by **1500+ users at IITH**. This was done under Lambda Club, IITH

Wash-o-Smart (*Jan 2019*)

Aim : Designed a device that tracks the timer of a washing machine and displays it in an android application (**1st Semester Independent Project**).

EXTRA CURRICULAR

- Core member at Robotix club and Lambda (Dev) club at IITH.
- Table Tennis player at NSO, IITH.

ACHIEVEMENTS

- Achieved All India Rank 1872 among 2 Lakh shortlisted candidates in JEE Advanced Examination conducted by JAB.
- Achieved All India Rank 1913 among 12 Lakh candidates in JEE Mains Examination conducted by CBSE.