AAYUSH GOYAL

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

ee18btech11001@iith.ac.in ⋄ ○ aayush2710 ⋄ in

EDUCATION

Indian Institute of Technology, Hyderabad *July 2018 - Present*
Bachelor of Technology - Electrical Engineering Present CGPA - 8.4/10

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

Mount Carmel School Dwarka, New Delhi *April 2016*
Secondary School Overall CGPS: 10

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.

WORK EXPERIENCE

REPAYR, Hyderabad September 2019 - November 2019
Software Development Intern

· Worked on development of **Repayr android applications** for this startup. 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, LaTeX, Android Studio, Matlab, Git
Programming Languages	Python, C/C++, Java
Interests	Computer Vision, Graph Networks, Wireless Communication
Online Coursework	Machine Learning by Andrew NG
	Algorithms by Princeton University

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 Dan Brown'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**).

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.