

# Varad Pimpalkhute

73/106, Purva Apartment, PandeLayout, Nagpur - 440025

## **Academics**

2017-2021 B.Tech in Electronics and Communication Engineering, IIIT Nagpur

GPA **8.4**/10.0 (Currently Pursuing)

## **Technical Skills**

**Programming Languages** | C | Java | JavaScript | Python

Libraries / Frameworks | Jekyll | Numpy | Pandas | Scipy | Tensorflow | Keras

**Databases** MySQL

Systems / Platforms | Git | Linux | Bash Markup / Templating | HTML | CSS

Others | Latex | MATLAB | Raspberry Pi | Arduino | Microprocessor 8085

# **Projects**

#### Parkinson's Disease, Deep Convolutional Neural Network \*

Currently implementing the research paper Deep CNN for diagnosis of parkinson's disease using EEG signals. An automated detection system for Parkinson's disease (PD) employing the convolutional neural network (CNN) is proposed in this study. PD is characterized by the gradual degradation of motor function in the brain. Since it is related to the brain abnormality, electroencephalogram (EEG) signals are usually considered for the early diagnosis.

# Cognestive Heart Failure, Deep Convolutional Neural Network

Implementation of the research paper Deep CNN for the automated diagnosis of congestive heart failure using ECG signals. Congestive heart failure (CHF) is a chronic heart condition associated with debilitating symptoms that result in increased mortality, morbidity, healthcare expenditure and decreased quality of life. Electrocardiogram (ECG) is a non-invasive and simple diagnostic method that may demonstrate detectable changes in CHF. This project has implemented an 11 layer CNN to obtain an accuracy of 99.07%. This project is an amalgamation of multiple tools such as TensorFlow, Keras, Numpy, Scipy and Matplotlib. Results: Introduction to the deep learning and CNN. Got to learn various deep learning tools mentioned above.

#### Mini-Projects using Rpi, Arduino, C and Java

Worked on a couple of projects; Garage Door Opener, Line Follower, Edge Avoider, Intelligent Vehicle Park System and Snake Game. Learned the application of languages like C and Java, also basics of Data Structures. An introduction to the world of microprocessors and interfacing was achieved. The Garage Door Opener uses raspberry pi to connect with android to openit remotedly. Next, planning to interface it with Alexa. Line and Edge follower has been made using Arduino.

#### • dotSlash: A Jekyll Website

A website for the programming community 'dotSlash' of IIIT Nagpur using HTML, CSS, JavaScript and Jekyll.

# **Technical Interests**

Machine Learning, Deep Learning, Signal Processing, Micro-Controllers, Image Processing, Biomedical Engineering

# Activities & Leadership

- Conveyer, dotSlash IIIT Nagpur: Conveyer of the open source track in programming community 'dotSlash'. Our motto is to promote competitive coding and increase an awareness about Open Source Development and Machine Learning in the campus.
- Event Organiser in Tantrafiesta: Organiser and Co-ordinator for the Line Follower Event in TantraFiesta; arranged and handled the event which took place in Sept 2017. Also, was a volunteer for various events in TantraFiesta and Abhivyakti.
- Extra-Currricular: I like sketching in my free, running, reading books and playing basketball. I also like to write philosophical blogs and blogs on the difficulties I faced while learning new skills. I enjoy sitting in my balcony drinking a cup of coffee, introspecting about various things.