

# SIDDHARTH KALLA

ELECTRONICS AND COMMUNICATION ENGINEERING STUDENT

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M [HTTPS://SID-KALLA99.MEDIUM.COM/](https://sid-kalla99.medium.com/)

git [HTTPS://GITHUB.COM/SIDDHARTHKALLA](https://github.com/SiddharthKalla)

## Education

### Vellore Institute of Technology

July 2018 – June 2022

*Bachelor of Technology in Electronics and Communication Engineering*

*CGPA: 8.53/10*

Relevant Coursework : AI with Python, Essentials of Machine Learning, Calculus for Engineers, Statistics, Applied Linear Algebra

### Happy Hours School

June 2016 – April 2017

*12th Standard (CBSE Curriculum)*

*Percentage: 89/100*

## Experience

### Defence Research and Development Organisation, Jodhpur

Oct 2021 – Dec 2021

*Research Intern*

- Worked on building different GAN architecture for mnist image generation. Carried forward the architectures and worked on the main project in building camoGANs.

### IIT Roorkee

April 2021 – Oct 2021

*Research Intern*

- Worked on Physiological Data for classification of raw sensor data for different stress types using various techniques as MLP, CNN and Deep Learning techniques such as LSTM and RNN.
- Designed complex Neural Network structures as ResNet 50 from scratch to understand its complete working.

### Tantrabyte Pvt. Ltd.

Jun 2020 – Aug 2020

*AI Research Intern*

- Worked in a team for building Optimized Optical Character Recognizer and deploying the same for mobile application
- Worked on second project as building various layers from scratch and understanding working of CNN.

## Skills

**Programming:** Python, MATLAB

**Tools and Framework:** NumPy, Pandas, Sci-kit learn, Matplotlib, Seaborn, Git, TensorFlow, Flask

## Projects and Research Publications

### Employing Deep Learning For Classification of Stress using Raw Physiological Data

Nov 2021

- Submitted a study on classification of different Stress levels using raw Physiological sensor(Heart rate, SpO2, etc) data at the Hindawi journal
- This was a comparative study using different model, a combination of LSTM and CNN outperformed the experiments execute.

### Analysis OF Micro State EEG signals Through RNN Classification

Nov 2021

- Present the research paper at Ipat'21 conference jointly organised by VIT university, India and University of Malaya, Malaysia
- Our study proved that using raw micro state EEG data for Classification purpose has greater impact than various pre-processing techniques.

### Automatic Image Caption Generator

Aug 2021

- Designed an Image Captioning automatic system which can generate captions for all sorts of images given input to it.
- Developed in tensorflow framework using NLP, LSTM and other time series forecasting algorithms.

### Rice-leaf disease Detection

Apr 2021

- Worked on building classification algorithm for sorting leaf images into healthy and infected which has an excellent use in the agricultural industry
- Used VGG16 architecture for the whole classification and cross trained the model with different data to get a robust model.

### Text Summarizer

Oct 2020

- Worked on an end-to-end project which is useful to generate summaries from speech.
- Can produce summaries up to 30 percentage of the original text, also takes all kind of voice inputs, .mp3 or .wav and produces summary.

## Extra Curricular

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### Microsoft

July 2020 – Present

*Learn Student Ambassador*

- Conducted various Technical events to help aspiring college students in the field of Machine Learning and Artificial Intelligence for the community

### Indian Society for Technical Education

Oct 2019 – Dec 2020

*Vice Chairperson*

- Led my team of 60+ members to make them capable in organizing large scale tech events and National Level Hack-a-thon
- Also took in-charge of the Machine Learning department and mentored core members in this field.

### Helping Hands Welfare Society

Sept 2020 — Present

*Volunteer*

- Helped the needful during the pandemic time through this society. Also helped in organizing vaccination camps and emergency help services to them.

### Coding Blocks

Jun 2020 — Oct 2021

*Campus Ambassador*

- Organised various technical events and helped various Societies connect with Coding Blocks regarding Sponsorship in college events

## Online Certifications

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**Data Scientist's Toolbox:** Coursera

**Neural Networks and Deep Learning:** Coursera

**Machine Learning A to Z : Hands-on Python and R in Data Science:** Udemy

**Automate the Boring stuff with Python Programming:** Udemy