# SIDDHARTH DIVI

Interested in Machine Learning and Data Science, with experience working with Python, R and frameworks like Keras and Tensorflow, and ELK stack for Exploratory Data Analysis.

## Work Experience

**Feb. 2017 - present**
**Undergraduate Research Assistant** : Solarillion Foundation

**March 2018 - present**
**Undergraduate Teaching Assistant** : Solarillion Foundation

## Education

**2015-2019 (expected)**
**B.E. Computer Science** : SSN College of Engineering
**CGPA** : 8.85

**2014-2015**
**AISSCE** : Kendriya Vidyalaya Anna Nagar
**Board Marks** : 481/500

**2013-2014**
**AISCE** : Kendriya Vidyalaya Anna Nagar
**GPA** : 10

## Skills

| | | |
|---|---|---|
| **Python , Keras, Tensorflow** | **Django** | **C / C++ / Java** |
| **R / Octave** | **Shell Programming ELK Stack** | **Oracle SQL/MySQL** |

## Technical Experience

**Research Experience**

### 1. Forecasting Food Sales in a Multiplex using Dynamic Artificial Neural Networks

This work comprises of online learning and feature engineering by data correlative analysis in conjecture with densely connected Neural Network to address the concept drifts and latent time correlations present in the data respectively, to forecast food sales for one of the top multiplexes in India. It has been accepted to be presented at Future of Information and Communcation Conference (FICC), San Fransisco, 2019.

### 2. Location Based Species Recommender System.

Prediction of top k species in a location based on the environmental features given in the form of tiff images. Presented as working notes, titled "Convolutional Long Short-Term Memory Neural Networks for Hierarchical Species Prediction" at CLEF 2018 Avignon, France.

### 3. DeepTrace : Generic Deep Framework for Cross-Domain Univariate and Multivariate Time Series Forecast.

A generic framework of model architectures that could work across all classes of time series datasets. This work has been submitted to AAAI 2019, to be held at Hawaii.

**4. Microsoft Summer Research Workshop 2018**

As part of the MSR Summer Workshop 2018 on 'Machine Learning on Constrained Devices', worked on extending two algorithms Bonsai and ProtoNN for regression. Part of the team that jointly won the MSR research grant. **Link**

**Projects**

**1. Data Augmentation and the Exploration of Transfer Learning in GANs. (ongoing)**

As part of our final year project, me and a couple of fellow students, are working on augmenting imbalanced datasets, and also exploring transfer learning with GANs.

**2. Student Behavioural Modelling System. (ongoing)**

Acquisition of various kinds of data related to the students of a college, to analyze their performance over time, from their freshman year onwards, and also to understand the influence of various factors on their academic and overall performance. **Link**

**3. Breast Cancer Detection System.**

An artificial medical diagnostic system, which aims to supplement / complement doctor's diagnosis, by making a prediction based on the results of the tests conducted on the patients. **Link**

**4. DC Motor Closed Loop Speed Control System.**

A closed loop speed control system built for a DC Motor using a P controller, in Arduino, with inbuilt PID Library, with the justification of the constants used as well, coupled with a report. **Link**

## Human Languages:

**English**                          **Telugu**                          **Tamil**

**Hindi**                          **German (B1-Level)**

## Volunteering / Community Service:

- Academic Support Volunteer, ASV, **MAD(Make a Difference)** Chennai 2017 - Present.
- Member of Admissions Committee, **Solarillion Foundation**, Chennai, 2018 - Present.
- Member of Selection Panel , **MAD** Chennai, 2018 - Present.
- Part of **Helios City CSR** relief operations, conducted post the devastating Chennai floods of December 2015.
- Part of **Helios City CSR**, that cleared the debris off an entire stretch of road, post the December 2016 Cyclone, Vardah.

## Hobbies / Interests:

- Playing Tennis, Table Tennis, Badminton, cycling and yoga.
- Reading fiction / non-fiction books.
- Debating / Public Speaking.

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**LinkedIn Github Website**