Anirudha Kemtur

+91 9686520389
f2015626@pilani.bits-pilani.ac.in
https://anirudhk686.github.io/
anirudhk686

Education

2015–2020 **B.E.(Hons.) in Computer Science**, *Birla Institute of Technology and Science (BITS) Pilani*, Pilani Campus, India, *CGPA 8.8/10*.

2015–2020 **M.Sc.(Hons.) in Economics**, *Birla Institute of Technology and Science (BITS) Pilani*, Pilani Campus, India, *CGPA 8.8/10*.
5 Year Dual Degree Program

2013–2015 **Class 12-Karnataka State Board**, *Deeksha College*, Bangalore, India, *Percentage 93.5*.

2003–2013 **Class 10-ICSE Board**, *Swargarani School*, Bangalore, India, *Percentage 91.4*.

Coursework

Computer Science Convolutional Neural Networks for Visual Recognition, Machine Learning, Data Structures and Algorithms, Computer Programming, Object Oriented Programming, Database Systems, Discrete Structures for Computer Science, Logic in Computer Science, Microprocessors and Interfacing, Object Oriented Programming

Neuroscience Computational Neuroscience, Digital Signal Processing

Mathematics Probablity and Statistics,Linear Algebra, Calculus

Experience

June'18–Present **Summer Intern**, *Computational Neuroscience lab, IIT- Madras*, Chennai, India.
Prof. Dr. V Srinivasa Chakravarthy
- Computational Neuro-modeling of Reinforcement learning in the brain.
- Modeling Temporal learning in Basal Ganglia structure using Nengo Framework.

Jan'18–Present **Research Assistant**, *CSIR - Central Electronics Engineering Research Institute*, Pilani, India.
Dr. A. S. Mandal
- Working on classification of EEG(Brain Signals) data as a part of the project "Drone Maneuvering using Brain-machine Interfaces".
- Suggested a two-step pipeline for improving efficiency:
  - Convert Signal to images through Short-time fourier transform
  - Classify images using Convolutional Neural Network
- Conducting research on developing a system employing the steady-state visual-evoked potential (SSVEP) component of an electroencephalogram (EEG).

May'17–July'17 **Summer Intern**, *National Centre for Antarctic and Ocean Research*, Goa, India.
Mr. Sakthivel Samy V
- Worked on developing a facial recognition system (Currently being used for automatic attendance monitoring at the institute).
- Modeled Antarctic temperature data using ARIMA approach.
- Project details mentioned below.

Major Projects

July'17 **Facial recognition system using Convolutional Neural Network**.
- Followed a three step approach: face detection,encoding and comparison.
- Face encoding was based on the approach suggested in M. Parkhi et al.,2015.
- VGG-16 Net architecture used and was implemented using keras library.
- Transfer Learning was used to generalize the model.
- Second last layer's feature vectors were extracted and were compared using cosine similarity.

[Project Blog] [Code]

June'17 **Antartic weather data analysis**.
- Analyzed temperature data with the Autoregressive Integrated Moving Average Model.
- Forecast was also done based on the obtained model.

[Project Report] [Code]

Dec'16 **Stock Market Simulator**.
- A trading platform built using Django, built for college technical fest
- Server hosted on LAN, participants could register and trade with their mobile.

[Code]

Software skills

Expertise Convolutional Neural Networks, Data Analysis

Languages Python, Java, C

Libraries Keras, TensorFlow, Open-cv, Django

Organisations

Jan'18–Present **Seekhne Sikhao Initiative**, *Founder*.
- We try to motivate and guide individuals working as Security guards and Janitors in our college to acquire basic English and Computer skills.
- All of them have smartphones with internet but not aware of the resources available to learn online.
- Instead of teaching them the skills itself we try to teach them how to learn those skills through youtube. We have created playlists for them to learn.
- We have also set up a computer to practice the things they learn online.
- This can be easily adapted by all of us so that the digital revolution in our country can be channeled in a proper direction.

[Blog]

Aug'15–Present **Association for Computing Machinery**, *BITS-Pilani Student Chapter*, Core Team.
- Chapter has been awarded the Best Student Chapter in India for 3 consecutive years with a recognition from ACM International.
- We try to instill an interest amongst the members for various forms of software and hardware related skills via Special Interest Groups and lectures.

[Website]

Achievements

Dec'17 **Selected for Global Academic Internship Programme at NTU, Singapore**.
- Only 60 students selected from all over India

June'15 **Jee mains All India Rank-3320**.
- 13 Lakh Students had appeared for the exam