

# Anirudha Kemptur

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## Education

- 2015–2020 **B.E.(Hons.) in Computer Science**, *Birla Institute of Technology and Science (BITS) Pilani*, Pilani Campus, India, *CGPA 8.7/10*.
- 2015–2020 **M.Sc.(Hons.) in Economics**, *Birla Institute of Technology and Science (BITS) Pilani*, Pilani Campus, India, *CGPA 8.7/10*.  
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*.

## Software skills

- Expertise** Machine learning - Computer vision, Deep reinforcement learning  
Computational Neuroscience
- Languages** Professional: Python  
Intermediate: Java, C, Verilog
- Libraries** Keras, TensorFlow, Open-cv, Django

## Experience

- December'19– Present **Research Assistant**, *CSIR - Central Electronics Engineering Research Institute*, Pilani, India.  
Dr. J L Raheja  
◦ Working on control of Robot manipulator using Deep reinforcement learning techniques.
- June'18– **Research Intern**, *Computational Neuroscience lab, IIT- Madras*, Chennai, India.
- August'18 Prof. Dr. V Srinivasa Chakravarthy  
◦ Worked on Computational Neuro-modeling of Reinforcement learning in the brain(Basal Ganglia region).
- Feb'18– **Research Assistant**, *CSIR - Central Electronics Engineering Research Institute*, Pilani, India.  
April'18 Dr. A. S. Mandal  
◦ Worked on classification of EEG(Brain Signals) data as a part of the project "Drone Maneuvering using Brain-machine Interfaces".
- May'17– **Summer Intern**, *National Centre for Antarctic and Ocean Research*, Goa, India.  
July'17 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.

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## Major Projects

- January'18- **Video summarization using Deep learning techniques.**  
present
  - Exploring various approaches to video summarization such as Reinforcement learning, Bi-directional LSTM's and Attention networks.
- 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.[\[Code\]](#)

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## Coursework

- Computer Science* Convolutional Neural Networks for Visual Recognition, Deep Reinforcement learning , Machine Learning, Data Structures and Algorithms, Microprocessors and Interfacing, Object Oriented Programming
- Mathematics* Probability and Statistics, Econometric methods, Linear Algebra, Calculus

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## Organisations

- Aug'15- **Association for Computing Machinery, BITS-Pilani Student Chapter, Core Team.**  
Present
  - 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.[\[Website\]](#)

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## Achievements

- January'19 **Mitacs Globalink Scholarship.**
  - Financial award to participate as research intern in Canada for 3 months.
- June'15 **Jee mains All India Rank-3320.**
  - 13 Lakh Students had appeared for the exam