# Pranav Garg
## Curriculum Vitae

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A straight shooting go-getter with an unquenchable thirst for knowledge
and a large appetite for hard work

## Education:

### B.E. (Hons.) Electrical and Electronics Engineering (Aug 2015 - Present)
ID Number: 2015A3PS295G, 5th Semester Student
Birla Institute of Technology and Sciences, Pilani K.K. Birla Goa Campus
Current CGPA: 7.057

### Grade XII, CBSE Board
### All India Secondary School Certificate Examination
### (April 2014 - March 2015)
Delhi Public School, Jodhpur
Graduated with a score of (462/500) 92.4% in 5 subjects
Computer Science with C++ Programming (98/100)

### Grade X, CBSE Board
### All India Secondary School Examination
### (April 2012 - March 2013)
Delhi Public School, Jodhpur
Graduated with a CGPA of 10 (out of 10) in 5 subjects

## Technical Knowledge:

- Machine Learning
- Deep Learning
- Computer Vision
- Natural Language Processing
- Reinforcement Learning
- Theoretical Neuroscience
- Programming Skills:
    - C++ Programming
    - C Programming
    - Python Programming and Scripting
        - Numpy
        - Pandas
        - Pytorch
        - OpenCV
    - MATLAB (Intermediate Level)
    - Shell Scripting (Basic Level)

- Git (Basic Level)
- Parallel Programming using CUDA architecture
- Signal Processing
- Image Processing
- Digital circuit Designing
- Hands on experience with SOC, Development and Prototyping Boards
- Basic Networking skills (I attended an excellent workshop on networking named Nettech)

# Courses (selected few related to field of interest):

Ongoing:
- On campus Courses:
  - Discrete Mathematics
  - Machine Learning
  - Neural Networks

- Online Courses:
  - CS 224n – Natural Language Processing with deep learning
  - Reinforcement learning by David Silver (Deep Mind)
  - Deep Learning Specialization by Andrew NG

Completed:
- On campus Courses:
  - Digital Design
  - Computer Programming
  - Signals and Systems
  - Control Systems
  - Microprocessors and Interfacing
  - Theoretical Neuroscience

- Online Courses
  - Machine Learning by Andrew Ng (Coursera)
  - CS 229 - Machine Learning (Stanford)
  - CS 231n - Convolutional Neural Networks for Visual Recognition (Stanford)
  - Introduction to Parallel Programming with CUDA (Udacity)
  - Probablity and Statistics (Stanford Lagunita)
  - Applied Data Science with Python (Coursera)

# Projects:
# Current Projects:

- **Denoising Gravitational Waves using Supervised and unsupervised learning**: Research Project with Professor Kinjal Banerjee and Rhett Dsouza using GANs and CNNs

- **Analysing and modeling Electroencephalogram data from Brain Computer Interface using Recurrent Neural Networks:** Working on EEG data from BCI for Alzheimer's Disease.

## Past Projects:

- **Detection of Windmills from satellite Images using Deep Neural Networks**: A project at Remote Regional Sensing centre west, Indian Space Research Organization. End to end application and training of Faster RCNN algorithm for object detection on satellite data.

- **A Study on applications of Neural Networks in Computer vision:** A study Project under Professor Bijil Prakash from BITS Pilani KK Birla Goa Campus.

# Affiliations:
## Current Affiliations:

## President and Founder, Society for Artificial Intelligence and Deep Learning (From August 2017):

The President and founder of the at-infancy community of Ai enthusiasts, who will be able to collaborate on different projects, mentor each other and help expand the knowledge base of each other. More Details on saidl.in

## Co-Founder, NeuralQuant (From July 2017):

I am working on a deep learning based quantative finance startup which is currently under incubation.

## Vice President, IEEE Student Branch, BITS Goa (From April 2017):

I am the Vice President of the Student Branch of IEEE in BITS Goa, our aim is to develop the technical culture on campus and holding talks, workshops and conferences.

## Electronics Co-ordinator, Sandbox Committee, BITS Goa (From February 2017):

I am the Electronics Co-ordinator and member of the official seven student committee in-charge of the managing the FabLab (Fabrication Laboratory) in BITS Goa.

## Student Partner, Microsoft (From August 2017)

## Past Affiliations:

## Research Intern, Remote Regional Sensing Centre, Indian Space Research Organization (From May 2017 – July 2017):

I worked on end to end training implementation of Faster CNN Algorithm for Detection of Windmills in satellite data. From the creation of dataset to training and deploying the model

## Mentor, Electronics and Robotics club (From November 2015 – August 2017):

An active member and mentor to newly inducted members.

**Content Developer, Project Mudra (December 2015 - April 2016):** I was involved in the content writing and marketing team of Project Mudra (http://www.projectmudra.com/). They mentored me through the usage of Development Boards and Product creation

## Non Academic Interests and Hobbies:

- Public Speaking (I took a course in Effective Public Speaking in my third semester and it is something which turned into a passion of mine)
- Blogging: I write a blog with technical posts and science fiction (thesilentmonksretreat.wordpress.com)
- Reading Self Development Books
- Animal Welfare.
- Story and Content Writing: I love writing thoughtful scientific articles, here are the links to a few of them:

- http://plutoniumgenesis.tumblr.com/post/131491531333/strings-of-destiny
- http://plutoniumgenesis.tumblr.com/post/137351115093/they-call-me-superman
- http://plutoniumgenesis.tumblr.com/post/131604872363/flutter-flutter-marty-back-to-the-future

# Contact Information:

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