

# Pranav Garg

## Curriculum Vitae

Phone: +91 - 7726846229  
E-mail: [pranavgarg@gmail.com](mailto:pranavgarg@gmail.com)  
Website: [pranavgarg.in](http://pranavgarg.in)  
Github: [pgtgrly](https://github.com/pgtgrly)

---

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: 2015A3PS0295G, 6<sup>th</sup> Semester Student  
Birla Institute of Technology and Sciences, Pilani K.K. Birla Goa Campus

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:
  - Data Structures and Algorithms
- Online Courses:
  - Deep NLP (Oxford)
  - Reinforcement learning by David Silver (Deepmind)
  - Deep Learning Specialization by Andrew NG

### Completed:

- On campus Courses:
  - Digital Design
  - Computer Programming
  - Signals and Systems
  - Control Systems
  - Microprocessors and Interfacing
  - Theoretical Neuroscience
  - Discrete Mathematics
  - Machine Learning
  - Neural Networks
- 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)
  - Probability 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
- **Smart Heart - Portable Holter Monitor with Real time Threat Detection using Nvidia Jetson TX2:** A portable ECG Machine that will be able to predict heart problems in Real Time

### 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.
- **Analysing and modeling Electroencephalogram data from Brain Computer Interface using Recurrent Neural Networks:** Working on EEG data from BCI for Alzheimer's Disease.
- **Denoising Images using Convolutional-Deconvolutional Network:** <https://github.com/pgtgrrly/Convolution-Deconvolution-Network-Pytorch> for Neural Networks And Fuzzy Logic Course in BITS Pilani
- **OCR on Devanagari Script:** For Machine Learning Course in BITS
- **Image Segmentation on Spacenet dataset:** For Proof of Concept for GAIL Project with Dr Neena Goveas

## 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](http://saidl.in)

#### **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 and HPC 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.

**Kosambi Team, BITS Goa (From December 2017):** I am part of the team which maintains and monitors the HPC Machine Kosambi 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](http://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-c-all-me-superman>
- <http://plutoniumgenesis.tumblr.com/post/131604872363/flutter-f-lutter-marty-back-to-the-future>

## Contact Information:

### Address:

#### College Address:

Room No.350, Hostel AH4,  
BITS Pilani K.K. Birla Goa Campus  
NH 17B, Zuarinagar, Goa- 403726  
India

#### Home Address:

229 - Mansarovar-A  
Pal Road, Jodhpur  
Rajasthan - 342014  
India

## References:

### 1. Dr. Neena Goveas

Associate Professor, Department of CS & IS  
Associate Dean, ARC  
BITS Pilani, KK Birla Goa Campus, Goa  
Phone: 0832-2580403  
Mobile: 09923481968  
E.mail: [neena@goa.bits-pilani.ac.in](mailto:neena@goa.bits-pilani.ac.in)

### 2. Mr Bijil Prakash

Lecturer (Department of Mathematics)  
BITS Pilani, KK Birla Goa Campus, Goa  
Phone: 0832 – 2580291  
Mobile: +91-9823385284  
E.mail: [bijil@goa.bits-pilani.ac.in](mailto:bijil@goa.bits-pilani.ac.in)