



# Pranav Garg

Software Developer

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

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## WORK EXPERIENCE

### Software Development Engineer

Amazon

11/2019 - Present

Hyderabad, India

*I am part of Value added Services, Our team provides a platform which enables the creation, management and fulfillment of various service based businesses within Amazon.*

*Achievements/Tasks*

- My responsibilities include designing and implementing solutions for business requirements, understanding and enhancing existing architectures, mitigating operational challenges faced by the team.
- Rewrote the patch-worked iOS App for team's hybrid mobile application from the scratch. The project involved diving into the existing codebase, learning iOS app development, creation of multiple proof of concepts, implementing various best practices for the stack and integration of the application with the existing WebApp. The resulting application saw a decrease in App size by 57%.
- Designed and implemented a high volume chatroom lifecycle management cloud infrastructure. As part of the project I created a chatroom management API suite along with a PubSub based solution which automates the creation and closure of chatrooms along addition and removal of chat participants based on job events and job related metadata.
- Designed configurable temporal resource recommendation system. This involved scoping and discussing the business requirements, exploring the existing infrastructure within across the organization, creating a design that maximizes the usage of existing components and designing new components with appropriate tenets and responsibility along with their low level behavior.
- Worked on multiple small scale projects such as migrating the team stack for a new marketplace, creation of bridging components between the team's systems and the systems owned by shipment tracking team, writing UI integration tests for our web application using Selenium based test suite, Integration of third-party scanner functionality in Mobile platforms and updating deprecation in legacy app code-base as per platform security requirements.

### Software Development Intern

Amazon

05/2019 - 07/2019

Hyderabad, India

*I interned at Amazon as part of a services platform named Value Added services.*

*Achievements/Tasks*

- I designed and implemented a server-less, cloud based data ingestion and discovery pipeline. As part of nine week high paced internship, I learned about team's infrastructure, learned Java, chalked out the high level and low level design constructs, implemented and deployed the project.
- Worked with the following AWS offerings: S3, Lambda, Kinesis, DynamoDB, SQS, Cloudwatch and Elastic Search.
- Received a full time offer for my work.

### Research Assistant

Cognition Lab, Centre for Neuroscience, IISc

01/2019 - 05/2019

Bangalore

*Achievements/Tasks*

- I authored my undergraduate thesis titled "Predicting behavioral scores of individuals using structural connectivity" based on Human Connectome Project dMRI dataset.
- Created a cloud based AWS Pipeline to process diffusion MRI data which brought down the processing time of one patient from 6 hours to 30 minutes.
- Modeled White matter connectome into a weighted graph, engineered features from the graph and predicted behavioral scores of individuals using machine learning algorithms.

## WORK EXPERIENCE

### Intern

#### Google Summer of Code 2018 - Ruby Science Foundation

05/2018 - 08/2018

Achievements/Tasks

- Explored the architectures of various open source plotting libraries.
- Designed and developed a scientific plotting library for Ruby, "Rubyplot" from the scratch. I created Ruby - C binding for GR Framework and created a plotting library ,written solely in Ruby on top of it. Used a Test Driven Development approach to code the project.
- Presented Rubyplot at RubyConf 2018.

### Research Intern

#### Indian Space Research Organization (ISRO)

05/2017 - 07/2017

RRSC-W Jodhpur

Achievements/Tasks

- I lead a project titled "Detection of Windmills from Satellite Images using Deep Neural Networks".
- I planned the milestones and a timeline for the project and mentored team members in familiarizing themselves about the concepts of Computer Vision using deep learning.
- The project involved end to end implementation of the data analysis pipeline with tasks including web scraping, image annotation, training and providing an interface to use the trained network.

## SKILLS

Amazon Web Services

Spring MVC

Cloud Computing

iOS App Development

Java

Service Architecture design

## SOFT SKILLS

Project Scoping and Management

Public Speaking

## EDUCATION

### B.E. Electrical and Electronics Engineering (Hons.)

BITS Pilani

08/2015 - 08/2019

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Courses ( Relevant)

- Theoretical Neuroscience
- Probability and Statistics
- Machine Learning
- Discrete Mathematics
- Computer Programming
- Linear Algebra
- Neural Networks
- Data Structures and Algorithms

## ACHIEVEMENTS

### Speaker at RubyConf 2018 Los Angeles (11/2018)

I was the only Student speaker at RubyConf 2018. my talk can be found at <https://www.youtube.com/watch?v=7QBkckZ1aNQ>

### Participated in CAMP 2018 (06/2018)

I was one of the few undergrads selected to attend an international summer school about Neuroscience at NCBS Bangalore.