

# Raghav Prasad

3rd-year, Computer Science, Birla Institute of Technology and Science, Pilani - K.K. Birla Goa Campus.

Mumbai

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# Education

**B.E. Computer Science and Engineering** 

2017 - Present

Birla Institute of Technology and Science, Pilani

CGPA: 9.47, Expected graduation: August 2021

ISC (Class XII) 2014 - 2016

The Cathedral and John Connon School

**Result**: 92.6%

ICSE (Class X) 2012 - 2014

The Cathedral and John Connon School

Result: 96%

#### Courses

Completed: Probability and Statistics, Mathematics-I (Integral Calculus), Mathematics-II (Linear Algebra), Mathematics-III (Differential Calculus), Object-Oriented Programming, Discrete Structures for Computer Science, Logic in Computer Science, Database Systems, Data Structures and Algorithms, Microprocessors and Interfacing, Digital Design, Neural Networks and Fuzzy Logic, Introduction to Cognitive Neuroscience, Operating Systems, Theory of Computation, Computer Architecture, Principles of Programming Languages, Automated Theorem Proving

Ongoing: Computer Networks, Design and Analysis of Algorithms, Compilers, Quantum Information and Computing, Foundations of Data Science

# Skills

Java, Python, C

Shell scripting, Javascript, Ruby, HTML+CSS, Swift, Verilog

SQL, Git, Docker, UNIX/Linux

# Work experience

# Software Development Intern

May 2019 - July 2019

Homi Bhabha Centre for Science Education

I was part of a 4-member team assigned a web-development project to create a "Topic Organizer" plugin for HBCSE's Discourse based platform, STEMGames.

**Teaching Assistant** Jan 2020 - Present

Birla Institute of Technology and Science, Pilani

I am a TA for the course **Computer Programming** under Prof. Bharat M. Deshpande. In addition to mentoring the students, I am actively involved in the weekly laboratory sessions, formulating answer/solution keys for the questions designed for the labs.

Teaching Assistant Aug 2019 - Dec 2019

Birla Institute of Technology and Science, Pilani

I am a TA for the course **Object-Oriented Programming**, under Prof. Neena Goveas. I am actively involved in the design of questions for the weekly labs as well as the evaluation process.

**Instructor** Sep 2019 - Present

Centre for Technical Education, BITS Goa

I am one of three instructors for the course, **Introduction to Linux, Python and R**, conducted by the Centre for Technical Education (CTE) in my college. I am in-charge of the **Linux** and **Python** modules, whereas the other two instructors teach R.

# **Teaching Assistant, Quark Summer Technical Projects**

May 2018 - July 2018

Quark

I was the teaching assistant for a remote course entitled **Introduction to Python**, conducted under the ambit of Quark, my college's technical fest. I was a mentor to 65 students.

# **Projects**

# Domain: Deep Learning, NLP, Image Analysis

Nov 2019

Meme Sentiment Analysis

The objective of this project was to predict the sentiment, offensiveness and motivation quotient of the meme given the image and caption of the memes, using a **multimodal deep learning model**. The motivation label had 2 classes, the sentiment label had 5 classes and the offensiveness label had 4 classes.

### Domain: Web Development

#### May 2019 - July 2019

Discourse Topic Organizer

A plugin for any Discourse-based platform, which provides an interface for staff and admins to organize topics. This was designed for STEMGames with the vision of using a Discourse instance as an LMS. The project was completed successfully. I am currently still in touch with the team at Homi Bhabha Centre for Science Education, maintaining and upgrading this.

# Domain: Computational Biology and Biomedical Image Analysis

Sep 2019 - Present

A study of progression of Alzheimer's Disease using advanced graph theoretical analysis

The aim of this project is to design a data-driven approach to understand and analyze brain networks with respect to certain network metrics. These metrics are then correlated with results of standardized tests designed to gauge cognitive function.

# Domain: iOS app development using Swift

Sep 2018

DoJMA iOS app

As part of the Mobile Application Club in my college, I co-created an iOS app for the college's Department of Journalism and Media Affairs (DoJMA). It not only serves as a platform for DoJMA but is also a one-stop solution for everything campus-related.

# **Conferences and Workshops**

# Organiser: Corporate Gurukul

June 2018

Global Academic Internship Program

A 3-week long academic internship program at NUS focused on Machine Learning, Deep Learning, and Big Data Analytics using Hadoop

# Organiser: Imperial College, London

July 2015 - August 2015

London International Youth Science Forum

A 2-week long youth science forum hosted at Imperial College, London. I was 1 of 8 people representing India among over 60 other nations

# Organiser: Japan Science and Technology Agency

May 2015

Sakura Science Program

An exchange program to Japan. Specifically the Ritsumeikan University and the University of Tokyo, along with visits to various other labs and facilities.

## Certifications

Certificate in Network Management, certified by Nettech

# **Scholarships**

Institute Merit Scholarship for Semesters I, II, III and IV

The Institute's Merit Scholarship is awarded to the top 1% of the students.

## **Research Interests**

Computational Neuroscience, Deep Learning

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