

# Pranjal Tale

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## EDUCATION

### INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

INT. MSc IN APPLIED MATHEMATICS  
2015 - 2020 (expected)  
Roorkee, India

### JAWAHARLAL NEHRU SCHOOL SENIOR SECONDARY(CBSE)

Grad. May 2015  
Bhopal, India

## AREAS OF INTEREST

Software Development,  
Cloud,  
Containerization

## OPEN SOURCE

CodeWorld, Sympy,  
Firepad, Cadasta

## LINKS

Github:// [pranjaltale16](#)  
Portfolio:// [pranjaltale16](#)  
LinkedIn:// [pranjaltale16](#)  
Codechef:// [pranjaltale16](#)

## COURSEWORK

### CS

Mathematical Imaging Techniques  
Database Management Systems  
Linear Algebra  
Design and Analysis of Algorithms  
Data Structures  
Machine Learning (Andrew NG,  
Coursera)  
cs231n (CNN for Visual recognition)

### MATHEMATICS

Complex and Real Analysis  
Probability and Statistics  
Number Theory  
Discrete Mathematics  
Graph Theory  
Numerical Methods

## EXPERIENCE

### HACKERRANK | SOFTWARE DEVELOPER INTERN

May 2018 - July 2018 | Bangalore, India

- Extended Firepad to support collaborative editing for Monaco-editor.
- Developed a code evaluator which evaluates every submission in an isolated environment using container properties. The entire project is written in golang to get high concurrency for sync and evaluation.
- Tech-Stack: Docker, Golang, AWS-SQS, JavaScript, Firebase

### VERNACULAR.AI | SOFTWARE DEVELOPER INTERN

Nov 2017 - Dec 2017 | Bangalore, India

- Developed a python package to parse text into structured data. It parses temporal expressions from different languages and recognize quantities described in different ways.
- Tech-Stack: Python, Django

### CODEWORLD | SUMMER OF HASKELL 2017

May 2017 - Sep 2017 | Work from home

- Developed a standalone executable Cabal package for source code compilation wrapped over GHCJS; added test suite for the same and regex parser for filtering the error messages. Made a custom tree parser using haskell-src-exts and syb, to check for syntax errors before compilation.
- Tech-Stack: Haskell, Javascript, Shell scripting, SNAP-framework

### SURA | SUMMER UNDERGRADUATE RESEARCH AWARD

May 2017 - Sep 2017 | IIT Roorkee

- Developed a model in MATLAB for 3D analysis of Oxygen transfer for animal cell suspension culture, mentored by Dr. Ameya K. Nayak. To study the flow field and oxygen transport in a micro bioreactor and extend the results for micro-scale.

## TECHNICAL PROJECTS

### SMP PORTAL | INFORMATION MANAGEMENT GROUP, IIT ROORKEE

- Developed an application enabling information exchange, event announcement, documents sharing between mentors, mentees and team with push notifications, aimed at fostering healthy interaction.
- Tech-Stack: Django, mysql, semantic-UI, jQuery, django-auth, Apache2.

### NOBEL | INFORMATION MANAGEMENT GROUP, IIT ROORKEE

- Nobel is an internal Chat Room for the members of IMG, Built on NodeJs using socket.io and Semantic-UI. It helps us to check for the presence of members in the lab and communicate with them.
- Tech-Stack: Node-js, Express, Semantic-UI, pm2, vanilla js, Socket.io.

### IMG WEBSITE | INFORMATION MANAGEMENT GROUP, IIT ROORKEE

- Worked on IMG(Information Management Group) website as a full stack developer. It consists of features like dashboard for user, admin panel, blogs etc, also, the same tries to connect alumni with team.
- Tech-Stack: Django, mysql, materializecss, jQuery, Apache2.

## SKILLS

### PROGRAMMING

Proficient:

Haskell, Python, C++

Experienced:

LaTeX PHP, CSS, Js

### WEB

Django, Express, SNAP-framework

### UTILITIES

Linux, GitLab, Sentry, Piwik, MySQL,

Apache2, Redis, TensorFlow, scikit-learn

## LANGUAGES KNOWN

English - RSW

Hindi - RSW

## EXTRACURRICULAR

### ACTIVITY

Cook.

Play Guitar and Ukulele.

Cuber.

Photographer.

Astrophile.

## REFERENCES

### DR. A. K. NAYAK

Associate Professor, Dept. of  
Mathematics

Indian Institute of Technology  
Roorkee

nayakfma@iitr.ac.in

## ACADEMIC PROJECTS

### IMAGE DEBLURRING

- Image single image deblurring using Blind Deconvolution method in MATLAB, mentored by Dr. Sanjeev Kumar.

### LAB EXPERIENCES

- Implemented Several Algorithms in Data Structures, also incorporated advanced topics such as Segment Tree, AVL Tree, Dynamic Tree etc.

## ACHIEVEMENTS

2017 Recipient of Summer Undergraduate Research Award (SURA) by IIT-Roorkee

2017 Participated in HackDTU and successfully completed the app in 24 hours

2016 Recipient of INSPIRE-SHE scholarship, by Government of India

2016 Successfully completed the app overnight as a part of Code.Fun.Do 17

2016 Qualified for Elimination round of Codechef SnackDown-2016

2014 Awarded a Gold Medal in the school Basketball Open

2013 Selected for a visit to HEGRO Observatory situated in Pachmari, MP

## POSITION OF RESPONSIBILITY

### CHIEF COORDINATOR | INFORMATION MANAGEMENT GROUP

Apr 2018 – Present

- IMG, (Information Management Group) is a student's group in IIT Roorkee responsible for development and maintenance of internet and intranet applications in the institute, including the website of IIT Roorkee.

### JOINT SECRETARY | PROGRAM MANAGEMENT SECTION

Aug 2016 – Present

- Program management section is a cultural club under Cultural Council IITR, and is responsible for the conduction and management of all the events of Cultural Council smoothly.

### SENATE MEMBER | STUDENT AFFAIRS COUNCIL

July 2015 – April 2016

- I have been the part of Alumni Relations Team of SAC (Students Affair Council) IIT Roorkee for the academic Year 2015-2016.

### BRANCH REPRESENTATIVE | COGNIZANCE IIT ROORKEE

July 2015 – April 2016

- Cognizance IIT Roorkee is the Asia's second largest technical Festival Held in March every year I have been selected as a branch representative by Cognizance IIT Roorkee for the year 2015.