Somu Prajapati

Junior Undergraduate, Computer Science and Engineering
Indian Institute of Technology, Kanpur

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Education

- **B.Tech, Computer Science and Engineering** | Indian Institue of Technology, Kanpur | 2018-2022 (expected) | **CPI :** 7.9/10
- **Class XII** | Prince Academy | 2017 | 91.4%
- **Class X** | Kendriya Vidyalaya Leh-Ladakh | 2015 | **CGPA : 10/10**

Honors and Awards

- 2019 | **Silver Medalist** Dev Hackathon, Inter IIT Tech Meet
- 2018 | **AIR 949**,(JEE-Advanced) among 200,000 candidates
- 2018 | **AIR 3796**,(JEE-Main) among 1.5 million candidates
  (AIR = All India Rank)

Competencies

- **Programming :** Python, C++, C
- **Deeplearning :** Tensorflow
- **Web and App :** Django, Django REST, Angular, Flutter, HTML5, CSS3, PostgreSQL
- **Operating Systems :** Linux (Ubuntu), Windows
- **Misc :** Git, Dockers, Nginx, LaTeX, Bash

Relevant Coursework

- Under Graduate Project (UGP) **A***
- Data Structures and Algorithms
- Software Development and Operations
- Computer Organization
- Discrete Mathematics
- Logic for Computer Science
- Fundamentals of Programming
- Introduction to Electronics
- Linear Algebra and Diff. Equations
- Multivariable Calculus
- Introduction to Economics
- Blockchain Basics**
- deeplearning.ai specialization**
- Introduction to Tensorflow for AI, Machine Learning, and Deep Learning**
  (** = Online)

Extra-curricular

- 2019-present | **Athletic Sports** | Member of Institute Athletics team.
- 2013 | **Adventure Sports** | Participated in a 10-day special adventure course, Pahalgam-J& K.
- 2011 | **Mental Sports** | Participated in KVS National level chess championship, Bhopal MP.

Publications

CoDS-COMAD 7th ACM IKDD CoDS, and 25th COMAD   Jan 5-7, 2020
ISB Hyderabad, India
Demo Track Paper | Position : First Author

Demonstrated a tool SwaGrader, which Handles Grading for MOOCs with customizable and structured workflow, and is **one of the 6** accepted papers in the conference • Full paper under progress, to be submitted at *AIED : International Conference on Artificial Intelligence in Education*.

`Educational paper` `Mechanism-Design` `Agile Software Development` `Graphs`

Internship Experience

Software Development & Data Science Intern   April'20 - June'2020
MeTripping : An Intelligent Travel Search Platform, Bangalore
1. Project : VideoBlog Microsite for metripping.com | Position : Lead Developer

Built a Video Blogging and Streaming platform **from scratch** providing basic social media features using Vimeo API for streaming and storage • Used location tagging and user defined tags to **index** videos for a faster search response.

`Streaming architecture` `Django REST` `Angular9` `Vimeo` `Agile methodology` `Design patterns`

2. Project : Activity to Attraction mapping using NLP

Pre-processed, cleaned and mapped two internal datasets of trip activities to attractions • Used various techniques, multiprocessing wrappers, name matchings to map the activities.

`Data cleaning` `Pandas` `Pymongo` `multiprocessing` `fuzzy matching` `Stanford NER`

Projects

Swagrader : The Peer-Grading Tool   May'2019-present

Built a customizable and Game Theoritically (uses *TRUPEQA*) powered tool **from scratch** which handles peer grading and normal grading workflows for Massive Open Online Courses (MOOC).

`Agile methodology` `Server management` `Nginx` `Dockers` `Django` `Django REST` `allauth` `PyPDF2` `Angular` `PostgreSQL` `Database design` `Unit testing`

COVID-CT : AI to help doctors identify potential COVID19 patients   Mar'2020-Apr'2020

Participated in **Johns Hopkins Virtual Design Challenge** and **SAMADHAN** challenge by Govt. of India in a team of 4 with *Prof. Swaprava Nath* and *Prof. Hamim Zafar* • Devised a Contact Tracing algorithm to identify potential COVID-19 infected patients • Did Epidemiological analysis of the same with theoritical models using openpflow dataset from sekilabs, Japan • Carried the idea forward with SIIC IIT Kanpur, Campus Haat CORONA 360 app.

`Contact Tracing` `Algorithm Design` `Epidemiological analysis` `pandas` `matplotlib` `multiprocessing` `neo4j`

SRLMS : Smart Road Lease and Management System | Inter-IIT, Roorkee   Dec'2019

Developed an app based on **crowdsourcing**, which can be used effectively by the government, contractors, and citizens to improve the condition of roads • Developed modular backend exposing tens of APIs to the frontend app • **Dockerized** the tool keeping scability and speed in mind • **Judged 2nd** among all IITs participating in the competition.

`Django REST` `dockers` `docker-compose` `nginx`

Positions of Responsibility

Company Coordinator @ Students' Placement Office, IIT Kanpur   Aug'19 - Feb'20
Coordinating with 100s of companies for the placement of about 1000 graduating students in the Placement drive 2019.

Project Mentor & Secretary @ ACA, CSE IITK   Jan'20-Mar'20
Mentored 8 students in semester long project with assignments and theoritical discussions based on machine learning in data science.

Secretary @ Programming Club, IIT Kanpur   Apr'19-Mar'20
Responsible for hosting institute-wide lectures on various programming topics, organize hackathons and offer projects.

Student Guide @ Counselling Service, IIT Kanpur   Jul'19-Mar'20
Mentoring freshers for an overall academic and emotional support for generating inclusiveness.