

PRIYA GOLE

Junior Undergraduate

Department of Computer Science and Engineering

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PriyaGole  | Priya Gole 

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Educational Qualifications

Year	Qualification	Institution	CGPA/%
2020 – present	B.Tech	Indian Institute of Technology, Kanpur	9.0/10.0
2020	HSC – XII	P.B. Jog Junior College, Pune	91.4%
2018	CBSE – X	Noel School, Akola	96.6%

Research Experience

Indian Sign Language Translation

 SURGE

Prof. Ashutosh Modi

May '22 - present

- Collected and processed a total of **13,115** records of Indian Sign Language video data from **ISLRTC** and **RKMVERI** datasets, signed by **71 unique** signers.
- Clustered the dataset into **57 uncorrelated** categories and extracted the hands and face keypoints using **OpenPose** and **OpenFace** python libraries.
- Co-authored** the research paper, "CISLR: Corpus for Indian Sign Language Recognition" accepted in the **EMNLP 2022 Conference**.

Awards and Activities

Academic Excellence Award, IIT Kanpur

2020 - 2021

- For exceptional academic performance in the academic year 2020-21, being **amongst top 10%** in the batch.

Subject Matter Expert, UnchaAi

April '21 - June '21

- Solved the doubts and one-to-one mentored more than **30+ aspirants** through the JEE Chemistry Coursework.

Skills

Programming: C++, C, Python, Bash, Verilog HDL, MIPS assembly language, 8085 assembly language


Libraries: Numpy, Scikit-learn, Matplotlib, Pandas, PySat,

OpenFace, OpenPose, Pytesseract, Tensorflow, Keras

Utilities: L^AT_EX, Git/Github, Jira, Canva, Micro-cap

Positions of Responsibility

Number Theory And Applications

 Project

Mentor, Stamatias

April '22 - June '22

- Mentored **30+ students**, covered Number theoretic concepts, theorems and its real world applications.

Astronomy Club

Secretary

Sept. '21 - May '22

- Among the **26** selected secretaries responsible for handling club activities and events, organising workshops, watch streams and webinars for the campus.

Science Coffee House

Secretary

Sept. '21 - May '22

- Among the **11** selected secretaries responsible for managing club activities and events, organising talks, stream sessions and maintaining the website.

Relevant Courses

Data Structures and Algorithms

Discrete Mathematics

Probability Theory

Real Analysis

o: Online Course

Software Development And Operations

Computer Organization

Linear Algebra and ODE

Machine Learning^o

Fundamentals of Computing


Logic for Computer Science

Introduction to Electronics

Introduction to Deep Learning^o

Projects

Sudoku Pair and SAT Solver


 Github

Prof. Subhajit Roy

Course Project

- Implemented a python program to solve a sudoku pair (with an additional constraint that corresponding cells in pair can't have the same value) using **PySat**.
- Made a SAT Solver using **DPLL** Algorithm.

Store-IT


 Github

Prof. Indranil Saha

Course Project

- Built a **full-stack web app** that aims to digitize various physical stores and services of IIT Kanpur campus.
- Project followed plan driven development. First required documentation was created, following implementation.
- Worked on frontend and documentation right from the Requirement Documentation to the User Manual.

Introduction to Machine Learning

 Github

Science and Technology Council

May '21 - July '21

- Got introduced to the basic libraries used in data science like **Numpy**, **Pandas**, **Mathplotlib**, **Scikit-Learn** etc.
- Learned how to analyse and pre-process data, like scaling/standardization, **label** and **one-hot encoding**.
- Studied different Regression, Classification and Clustering models; learned about linear models like **Linear**, **Ridge and Lasso Regression** and non-linear models like **KNN**, **SVR**, **Naive Bayes** and **Random Forest**.
- Implemented everything learnt in Hackathon on **Zindi**.

Numbers Made Dumber

Stamatias

April '21 - July '21

- Worked on understanding algorithms like **Euclid's Algorithm** & it's consequences like **Bezout's Identity**.
- Learned about special primes like **Fermat** and **Mersenne Primes** and learned basic **primality tests** and distribution of primes and related concepts.
- Explored the idea **Congruences**, and related theorems like **Chinese Remainder Theorem** & its applications.
- Learned about the real-world applications in **Cryptography** like the **RSA Encryption**.

Algorithms Simplified

Association for Computing Activities

April '21 - June '21

- Learned various **Sorting** and **Searching** algorithms.
- Studied about the relevant **Number Theory** concepts.
- Explored the domain of **optimising time and space complexity** and studied fast computation techniques.
- Implemented theory in **Competitive Programming**.