

Gurbaaz Singh Nandra

COMPUTER SCIENCE · SOPHOMORE

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Education

Indian Institute of Technology Kanpur

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING

CPI 9.33/10.0

July 2019 - PRESENT

MGN Public School, Jalandhar

SENIOR SECONDARY EDUCATION

Percentage 95%

2017 - 2019

MGN Public School, Jalandhar

SENIOR EDUCATION

CGPA 10.0/10.0

Till 2017

Scholastic Achievements

- | | | |
|------|--|-------|
| 2019 | All India Rank 208 , secured among 200k students in JEE Advanced, 2019 | India |
| 2013 | All India Rank 159 , among 1.5 million students in JEE Mains, 2019 | India |
| 2019 | Secured Top 1% National Ranking in NSEC , and qualified for INCHO and INAO Olympiads. | India |
| 2019 | KVPY Fellowship , secured AIR 90 among 100k students in KVPY conducted by IISc Bangalore. | India |
| 2017 | NTSE Scholar , topped the state level exam and secured among top 1000 students in national level. | India |

Projects

AI Lawyer

COURSE PROJECT, DR. SWAPRAVA NATH GITHUB REPO

IIT Kanpur

Sept. 2020 - Nov. 2020

- Implemented Argumentation theory, and created an argumentation framework, and successfully implemented the AI Lawyer debating chatbot.
- Conducted a data-driven study, and successfully used argumentation mining to generate structured data from unstructured text.
- Studied various related research papers and collectively wrote a literature review .

Model Zoo

SUMMER PROJECT PROGRAMMING CLUB GITHUB REPO

IIT Kanpur

May 2020 - Jul. 2020

- Read, analysed and implemented various deep learning models from research papers covering domains from GAN to Image Detection to NLP in PyTorch.
- Summarised the understanding from research papers in the form of blogs.

RAD: Reading, Analysis, Discussion

SUMMER PROJECT ASTRONOMY CLUB GITHUB REPO

IIT Kanpur

May 2020 - Jul. 2020

- Reading, analysis and discussion of various astronomical concepts and phenomenon from Introduction to Astronomy : Frank H. Shu.
- Grasped an intermediate level knowledge of Tensors and documented the summary of topics discussed in simple manner.

Basic CP

SUMMER PROJECT PROGRAMMING CLUB

IIT Kanpur

May 2020 - Jul. 2020

- Learnt about different Data Structures and advanced algorithms and practised on competitive programming platforms.
- Understood the notion of time and space complexity and fast computation techniques.

Writing OS in Rust

ACA SEMESTER LONG PROJECT

IIT Kanpur

Jan. 2020 - May 2020

- Deeply followed and studied related blog by Philipp Oppermann to create operating system kernel using minimal Rust kernel that runs on bare metal.
- Understood working of a kernel and the communication via system calls.

Examination Portal

ESC101 ADVANCED TRACK COURSE PROJECT, DR. PIYUSH RAI

IIT Kanpur

Sept. 2019 - Nov. 2019

- Developed a web application enabling user to create an examination as well as give one timed exam and receive score and overall standing.
- Implemented user authentication and communicated data to frontend using Firebase API.

Skills

Programming	Python, C/C++, Julia, Verilog, Javascript, MATLAB, Rust
Frameworks	PyTorch, Keras, Tensorflow
Web	Django, Flask, REST API, JQuery, HTML5, CSS
Utilities	OpenCV, NLTK, Scikit, Git, Bash, \LaTeX
OS	Linux(Ubuntu), Windows
Languages	English, Hindi, Punjabi

Relevant Courses

- Data Structures and Algorithms
- Introduction to Game Theory and Mechanism Design
- Mathematics for Computer Science I
- Fundamentals of Computing
- Linear Algebra and Ordinary Differential Equations
- Real Analysis and Multi-Variable Calculus
- Introduction to Computational Thinking (MIT) [†]
- Software Development And Operations [†]
- Computer Organization [†]
- Mathematics for Computer Science II [†]
- Mathematics for Computer Science III [†]

†: Ongoing

Positions of Responsibility

Student Guide

COUNSELLING SERVICE

- Managed responsibility of 5 freshmen, helped and guided them in their induction to institute.

IIT Kanpur

November 2020 - PRESENT

Academic Mentor

COUNSELLING SERVICE

- Provided academic assistance in PHY103 to students from junior batches both individually and by organising virtual classes.

IIT Kanpur

November 2020 - PRESENT

Secretary

ASTRONOMY CLUB

- Conducted club activities and astronomical competitions for junior batch students and accustomed them to club.

IIT Kanpur

May 2020 - PRESENT

Secretary

QUIZ CLUB

- Conducted club activities and quiz competitions for junior batch students and accustomed them to club.
- Managed the designing area to make social media posters for the club events.

IIT Kanpur

July 2020 - PRESENT