



Uppala Vivek Narayan
UG (II Year II Semester)
B.Tech. (Computer Science and Engineering)
Contact No: 7989425329
Email: u_vnarayan@cs.iitr.ac.in
Registration No: 21114108/2023

Indian Institute of
Technology
Roorkee



Area of Interest

Machine Learning, Deep Learning, Computer Science

Education

Year	Degree/Examination	Institution/Board	CGPA/ Percentage
2023	B.Tech. 2nd Year	Indian Institute of Technology, Roorkee	9.545
2021	Intermediate (Class XII)	Narayana Junior College	97.00 %
2019	Matriculate (Class X)	Narayana EM School	10.000

Internships

Student Researcher | Computer Science and Engineering Department, IIT Roorkee

October 2022 - Present

- I am currently engaged in a research internship in Deep Learning (more specifically Medical Imaging) under the supervision of N. Kishore Babu, a Ph.D. student, and Professor Balasubramanian Raman sir. I have worked on a research paper titled "Transfer learning based framework for image segmentation using medical images and Tversky similarity" and is currently under process. We also plan to work after this research paper is completed.

Projects

Obstacle detecting car with LED | IIT Roorkee

April 2022 - June 2022

- We made a car that detects obstacles using an ultrasonic sensor and we coded it using Arduino code and we had an Arduino Board to which the motor driver and the sensor were attached. The motors were managed through the Motor Driver. Whenever there is an obstacle The car checks the left and right distance and accordingly turns to the direction with longest distance left. This was the course project for the course ECN-102 (Fundamentals of Electronics).

NFC based Android App for Campus Management | IIT Roorkee

August 2022 - November 2022

- We built an app using Flutter and Firebase to record status of student's entry and exit at the Gates of the campus. We introduced NFC(Near Field Communication) chip to solve the longstanding issue of Queues at gates for registering entry and exit of students. The app directly detects the NFC chip which contains the student's enrollment numbers when it is brought within 5-10 cm proximity and the data on NFC chip is read and status is toggled accordingly. Through the course of the project I realised how to manage a team and coordinate among various members. Although it was the first time we all were doing Software Development, we all learnt and put in our efforts and atlast succeeded.

Pipelined Processor Simulation | IIT Roorkee

August 2022 - October 2022

- We simulated the processor or core using Verilog as well as C++ and built five stages namely Instruction Fetch, Decode, ALU, Data Memory, Write Back along with Control Unit managing the signals. We also implemented Stalling as part of this project and pipelined processor was implemented. We also built an assembler to translate from our assembly code to binary which was later used by processor simulator to execute the instructions.

Cache Memory Simulator | IIT Roorkee

September 2022 - November 2022

- We simulated Cache Memory using C++ and used the LRU algorithm for block replacement and this was done using vectors. We consequently tested it on data given by our Professor and this was part of our course project of CSN-221(Computer Architecture). My team members had little idea about cache and I took upon myself to explain them the concept and through team work we were able to complete it before deadline.

Awards / Scholarships / Academic Achievements

- Awarded Reliance Foundation Scholarship in the year 2022
- Secured All India Rank (AIR) 41 in JEE-Mains and AIR 310 in JEE-Advanced, 2021
- Scored a perfect 10 SGPA in 2nd semester
- Secured AIR 8 and State 1st Rank in JEE Mains Paper-2
- Cleared KVPY SA Stream with AIR 104, 2020
- Represented India and IIT Roorkee at pre-finals of IAEA Student Video Contest-2022
- Awarded Rakesh Agrawal Annual Excellence Award by IITRHF, an alumni initiative
- Awarded ENCORE Award for the year 2022
- Secured 7th rank in Gold zone of Zuno Fellowship test conducted in Jan-Feb 2023

Skills

Computer languages	Java, C++, Verilog, Python, HTML, CSS, Flutter and Firebase ,UML
Software Packages	Tensorflow, Keras, Scikit learn, numpy, Pandas, Matplotlib, LaTeX(Overleaf Experience)
Additional Courses	Andrew Ng's Machine Learning Course on Coursera and Deep Learning specialization of 5 courses.
Languages Known	English, Hindi, Telugu

Positions of Responsibility & Extra Curriculars

Volunteer | SPIC MACAY, IIT Roorkee

February 2022 - Present

- I am a volunteer with the Heritage Club of IIT Roorkee, SPIC MACAY and have participated in organising several cultural events throughout the year. I have also been the co-coordinator of Kalighat Painting Workshop organised by SPIC MACAY from 6th to 8th February 2023.

Content Writer | onRec, IIT Roorkee

February 2022 - Present

- I have participated in recording many videos like Class of 2022, First Impressions and have written content for publishing across all our Social Media posts on YouTube, Instagram.

Member | QCG, IIT Roorkee

April 2022 - Present

- I have been a member of core team of QCG (Quantum Computing Group) and have delivered a talk in the series of talks Many Body Quantum Theory Meets Quantum Computation which as organised by QCG in collaboration with PaAC.

Participant | Qiskit Global Summer School (QGSS)

July 2022

- I have participated in QGSS which was held across two weeks by IBM Quantum in which many prominent Quantum Computing Researchers gave talks and lectures. It encompassed Quantum Simulation and Quantum Chemistry.

Paper Setter | Gambitor, Outreach IITR

August 2022 - September 2022

- We set the paper for the inaugural edition of Gambitor, an initiative by Outreach IITR under the aegis of DoSW for students of 9th-12th grade in India. This competition is similar to Technothlon of IIT Guwahati and primarily has Logical Reasoning, Aptitude and Maths questions.

Member | Ganga Bhawan Mess Council, IIT Roorkee

November 2022 - Present

- I am a member of Ganga Bhawan Mess Council for ensuring clean and hygienic food in the mess. We have taken several initiatives to improve the quality of food as well. I am the only Bachelor student part of the council, so I voice the opinion of all the undergraduate students.

UGTA (Undergraduate Teaching Assistant) | ARP ,IIT Roorkee

December 2022 - Present

- I am currently a UGTA for the course CSN-101 (Introduction to Computer Science) for the first year Computer Science students. I have helped them through giving resources and clearing their doubts.