

# B. Anshuman

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Sophomore Undergraduate  
Electrical Engineering IIT Kanpur

in b-anshuman13  
ba-13  
Homepage

## PROJECTS

- Game of Blocks** | Science and Technology Council, IIT Kanpur **Aug 2021 — May 2021**
- Involved understanding the underlying principles of BlockChains, how the system succeeds to be trustworthy in an otherwise environment, how the concept is applied to Cryptocurrencies, focussed on Ethereum
  - Included going through the basics of Game Theory for applying its concepts in the development of 2 Smart Contracts, on IRV and Dutch Auction Mechanism implementations, using Solidity and deploying on web3 as dapps
- Numbers Made Dumber** | Stamatics, IIT Kanpur **Apr 2021 — Jul 2021**
- Based on understanding the principles of Number Theory, topics that were oriented more towards Cryptography
  - Worked towards implementation of standard cryptographic algorithms including RSA and SHA
- Computational Astrophysics** | Science and Technology Council, IIT Kanpur **May 2021 — Jul 2021**
- Was introduced to Astrophysics and understood the usual conventions and patterns used throughout the field
  - Worked with Python's Astronomy dedicated library Astropy, with problems based on datasets from standard sites including Vizier and SDSS
- ML with Julia** | Association for Computing Activities, IIT Kanpur **May 2021 — Aug 2021**
- Explored the language Julia and implemented Logistic Regression Models from scratch in the language
  - Explored Linux system with basic CTFs and Exercism
  - Got acquainted to dealing with the mathematical operations and how they are represented in computers, including rationals and gradients

## EXPERIENCE

- Technical Team Member** **Apr 2021 — Present**  
Aerial Robotics, IIT Kanpur
- Working in a team on Autonomous UAVs. Till now based on simulations, via ROS-Gazebo integrated environment
  - Currently working on a project to implement a ROS Package based on the CSRT Tracker, involving the AUV to follow its prey.
  - Working on implementation of the SLAM (Simultaneous Localisation and Mapping) algorithm for effective autonomous navigation, going through the concepts of Kalman Filters
- Secretary** **Sep 2021 — Present**  
Programming Club, IIT Kanpur
- Position of Responsibility of conducting workshops, offering projects and organising hackathons for freshmen
  - Contributing to the Club's repositories, which are based on practical and deployable projects, that directly affects the campus community, the repos also includes collection of implementations of research papers
- Secretary** **Jul 2021 — Present**  
Design and Animation Club, IIT Kanpur
- Took part in Team based Rebranding event, the team securing 2nd position out of 9 teams of proficient designers.
  - Position of Responsibility of holding workshops and introducing freshmen to the concepts of design
- Senior Executive, Design** **Aug 2021 — Present**  
Udghosh, IIT Kanpur
- Part of the Design Team, involves creating posters and graphics for Udghosh, IIT Kanpur's Sports Fest, throughout the year
  - Currently working on the rebranding of the fest's theme.

## EDUCATION

- Indian Institute of Technology Kanpur,** **Nov 2020 — May 2024(Expected)**  
Electrical Engineering Sophomore Undergraduate,  
CPI: 9.18/10.00
- Jawahar Vidya Mandir Shyamali, Ranchi, Jharkhand** **May 2018 — Jun 2020**  
Class X (2018): 97.3%  
Class XII (2020): 96.7%

## TECHNICAL SKILLS

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<b>Languages</b>	C, Python, C++, Javascript, Julia, Solidity, Bash Scripting, Octave, Haskell
<b>Frameworks/Softwares</b>	Node.js, ROS, Gazebo, Qt, OpenCV, Pytorch, Adobe Photoshop, Illustrator and AfterEffects, Figma, Blender, Inkscape, Godot
<b>Utilities</b>	Git, Vim, Radare, $\text{\LaTeX}$ , Docker, Linux Shell, Conda, HUGO, Rappel

## RELEVANT COURSEWORK

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Fundamentals of Computing	Linear Algebra	Differential Equations
Real Analysis	Physics I - Mechanics	Physics II - Electrodynamics
Introduction to Electronics <sup>i</sup>	Signals and Systems <sup>i</sup>	Complex Analysis
i - Currently in progress		

## AWARDS & HONORS

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2020	All India Rank 651 , JEE Advanced
2020	All India Rank 1638 , JEE Mains
2020	KVPY SX Scholarship Awardee , Govt. of India
2019	KVPY SA Scholarship Awardee , Govt. of India
2018	NTSE Scholarship Awardee , Govt. of India