

SHASHVAT SINGHAM

SENIOR UNDERGRADUATE · PHYSICS

Indian Institute of Technology, Kanpur

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EDUCATIONAL QUALIFICATIONS

Year	Degree	Institution	CPI / %	Honours
2020 – 2024	B.S , PHYSICS	Indian Institute of Technology, Kanpur	6.4 / 10.0	
2019	CBSE – XII	Archies Higher Secondary School, Kanpur	94 %	School Topper
2017	CBSE – X	Air Force School, Kanpur	10.0 / 10.0	School Topper

PROJECTS

Data science : Tweet Emotion Recognition



Jan'22 - Feb'22

- Using a **Tokenizer** in **TensorFlow** and Padding and Truncating Sequences.
- Creating and Training **Recurrent Neural Networks**.
- Using **NLP** and **Deep Learning** to perform Text Classification in a dataset of **20,000 tweets**.

Portfolio Website



Aug'21 - Nov'21

- Made a portfolio website **hosted on IIT Kanpur homepage** using HTML , CSS and JavaScript.
- Use Bootstrap to **optimize** for **loading speed** and performance.
- Enhanced **web functionality** and **responsiveness**.

Python Compiler



Jan'22 - Feb'22

- Use **Tkinter** to create Graphical User interfaces (GUIs) and all standard Python Distributions.
- All the commands are **tokenized** in **parsed tree** using Tkinter text editor.
- Extended the compiler to generate **3-address code(3AC)** .
- Provided support for functions, classes etc and generate .

IIT Kanpur Student Search



Jan'22 - Feb'22

- Made a website that scraped the data from the Office Automation Portal .
- Use SSI VPN to access (If outside the campus) the information of all IITK students.

Machine Learning : Neural style Transfer



Jan'22 - Mar'22

- Load pretrained **VGG-19 model (Convolutional Neural Network)** ;Extract content and style features.
- Create style and content loss function and minimize the total loss to generate **minimize total loss artistic style image**.

Mobile App



Nov'21 - Jan'22

- Built a fully-functional **notes app** that runs on **android** , **ios** and **web** ; also it **stores notes locally to device**.
- Allow the user to **change** the **theme** from **dark to light** also **shows stats** of user's notes such as **total notes**, **words written** etc.
- Allows User to **pin notes** and **edit notes**.

WORK EXPERIENCE

God's Fire Fellowship Trust

Kanpur (Remote)

FRONT-END DEVELOPER INTERN

🌐 📷 Oct'21 - Dec'21

- Standardized all output with a new, **responsive, mobile-first approach** and strategy.
- Collaborated with product team members to implement new feature developments using HTML , CSS, Java script and bootstrap.
- Assessed UX and UI designs for technical feasibility.
- Implemented new responsive, mobile-first approach which increased mobile traffic by **20%**.

SKILLS

Proficient	C++ , Python , HTML , CSS , Javascript
Experienced	C , Java , R , GNU Octave , Mysql , SQLite
Exposure	Java , Kotlin , XML , Microsoft Azure
Frameworks	Django , Flutter , Bootstrap , Vue.js
Utilities	React Native , Git , Tensorflow , Pytorch , Scikit-learn , MongoDB , OpenCV , LaTeX , Linux

SCHOLASTIC ACHIEVEMENTS

- 2020 **All India Rank 2628**, JEE Advanced
- 2020 **All India Rank 3103**, JEE Mains
- 2019 **All India Rank 223**, JEE Mains (B.Arch / B. Planning)
- 2019 **All India Rank 4104**, JEE Advanced
- 2019 **All India Rank 2995**, JEE Mains
- 2018 **All India Rank 189**, National Aptitude Olympiad (NAO)
- 2018 **All India Rank 254**, National Mathematics Olympiad (NMO)
- 2017 **All India Rank 403**, National Talent Search Test (NTST)

POSITIONS OF RESPONSIBILITY

- **Campus Ambassador**, *Tryst*, IIT Delhi Jan 2022 - April 2022
Help the coordinators of IIT Delhi in spreading awareness of **Tryst**, **Technical Festival of IIT Delhi** among **IIT Kanpur** students.
- **Senior Executive**, *Show Management*, *Techkriti*, IIT Kanpur Jan 2021 - March 2022
Help in successfully conducting the Shows and Events like ROBO Games, Technocruise, TOSC etc in **Techkriti (Asia's Largest Technical and Entrepreneurial Fest)** at **IIT Kanpur**.
- **Secretary**, *ROBOGAMES*, *Techkriti*, IIT Kanpur March 2022 - April 2022
Help in successfully conducting the ROBO Games (one of the most eye catchy event) in **Techkriti (Asia's Largest Technical and Entrepreneurial Fest)** at **IIT Kanpur**.
- **Volunteered as Assistant Placement Coordinator**, *Student Placement Office (SPO)*, IIT Kanpur Dec 2021 - Jan 2022
Help in scheduling the placements interviews of the students graduating in 2022 of various companies like JLR, EXL, Bajaj Auto etc.

RELEVANT COURSES

Introduction to Programming	Machine Learning(*)	Cryptography (*)
Blockchain (o)	Data Structures and Algorithms (*)	Probability & Statistics
CyberSecurity (o))	Data Science with R programming (o)	Linear Algebra & ODE

*: Courses by **Stanford University** i: In progress o: On online platforms like Coursera, Edx etc.

MISCELLANEOUS

- **National Cadet Corp** (Air Force **NCC**) **A Level** Certificate of **UNIT 03 UP AIR SQN NCC**.
- Participated in **Covid-19 testing** in college Campuses by **Harvard Medical School (HMS)**.
- Attended **Microsoft's AI Classroom** Series.
- Contribute to some **open Source** projects like **openemr** etc.

INTERESTS

- Open Source Contributions
- Competitive Coding
- Image Processing
- Machine Learning
- Web Development
- Artificial Intelligence
- Robotics