RISHAV KUMAR

ACADEMIC DETAILS

Year	Degree / Board	Institute	GPA / Marks(%)
---	B.Tech in Materials Engineering	Indian Institute of Technology Delhi	7.17
2021	CBSE	Golden Public English School	78
2019	CBSE	St Paul's English School	93.4

SCHOLASTIC ACHIEVEMENTS

- **JEE Advanced:** Ranked among the top **5%** of students in engineering exam in India among **250k+** students   [2021]
- **JEE Mains:** Ranked among the top **2%** of students in Joint Entrance Examination Main among **1 million+** students   [2021]
- **Merit Certificate:** Awarded a prestigious certificate for being in the top **0.1%** of students in mathematics class X [2019]
- **Letter of Recommendation**: Received for excellence in academics, sincerity, and diligence by Prof. Ankur Goswami [2023]
- **Machine Learning Certification:** Awarded by **DeepLearning.ai** for proficiency in machine learning algorithms   [2023]
- **Term paper:** Researched the applications of TEM in **Information Storage Materials** and presented findings to professors[2023]

INTERNSHIPS

- **Enactus, Indian Institute of Technology Delhi |** *Full Stack Web Developer*   [April'23 - June'23]
  - Created a platform for marginalized individuals, offering skill development through hackathons and projects in diverse domains
  - Used Figma for **UI/UX** design and **frontend technologies** including HTML, TailwindCSS, JavaScript to bring design to life
  - Developed user dashboards for performance tracking, utilized **Django backend** with **secure authentication** for security
  - Leveraged **version control** tools such as **Git and GitHub** for effective code organization and collaboration with team members
  - *Enactus IIT Delhi featured our website, strengthening their pitch and securing finalist spot in the Enactus National Competition*

PROJECTS

- **Artificial Intelligence-Powered Unbeatable Tic Tac Toe** | *Prof. Sayan Ranu, Department of CSE*   [February'22]
  - Programmed in Python using the Pygame library, featuring two game modes: **Human vs Human** and **AI vs Human**
  - The program utilizes the **Minimax algorithm**, and at most, the human player was able achieve a draw against the AI
  - Adhered to **OOP principles**, employing classes and encapsulation for a cleaner, maintainable and reusable codebase
- **Cryptocurrency Web Application using react and redux toolkit** | *Portfolio Project*   [May'23]
  - Created a crypto application for monitoring **crypto prices, trends**, and delivering the latest cryptocurrency **news**
  - Utilized React for the frontend, Rapid API for fetching current crypto data like prices and news, and **Redux** for state management
  - Learned component-wise structuring of webpages, **deployed** it on GitHub Pages, and polished my version control skills
- **Data Structures and Algorithms** | *Prof. Huzur Saran, Dept. of computer science IITD*   [March'23]
  - Skip List: Executed **skip lists**, a probabilistic data structure, and applied it to solve a multi-tier cake bakery problem
  - AVL tree for balanced BST: Ensured **node rotation** by tracking the height difference during node insertion and deletion
  - Hash Table Dictionary: Designed the dictionary to support search, update, delete, and insert in **constant time complexity**
- **Multiclass Handwritten Digit Recognition using Neural Networks** | *Coursera, Prof. Andrew Ng*   [August'23]
  - Classified 28x28 pixel **MNIST** images of handwritten digits (0-9) using a dataset, determining their respective numbers
  - Created a custom multiclass classification neural network from scratch in **TensorFlow**, incorporating **ReLU** and **softmax** activations
  - Analyzed models with different architectures, **activation functions**, and **learning rates** and obtained an accuracy of **88.96%**

TECHNICAL SKILLS

- **Programming Languages-** Python, C++, Java | Object Oriented Programming, Data Structures and Algorithms
- **Tools & Software -** Git, Linux, BeautifulSoup, MS Office | **Python** - Scikit Learn, Pandas, NumPy, Matplotlib, OpenCV
- **Web Programming-** HTML, CSS, Tailwind CSS, SQL, JavaScript, Django, React, Django rest framework, Redux

POSITIONS OF RESPONSIBILITY

- **Technical executive, Economics Club IIT Delhi**: *Co-curricular and Academic Interaction Council* [June, 22 - May, 2023]
  - Developed and managed the club website, ensuring efficiency, **responsiveness**, and user-friendliness for student use
  - Integrated Winter School and club's website for a flagship event in collaboration with **Optiver**, with **1000+** attendees.
- **Football Vice-Captain, Girnar Hostel**: *Board for Hostel Management*   [June, 22 - May, 2023]
  - Allocated **20K** budget for football equipment, promoted sports culture, and represented the hostel in inter-hostel tournaments
  - Mentored over **30** freshmen, and conducted **20+** on-ground football training sessions to boost the team's performance

EXTRA CURRICULAR ACTIVITIES

- **Winner:** Secured **1st** Prize in National Business Plan Competition at Becon Fest, IITD amongst **100+** teams [2022]
- **Runner Up:** Achieved **2nd** Prize in auction competition in North India's biggest technical fest **TRYST**, IITD [2023]