

# HRITHIK SHARMA

Senior Undergraduate  
Department of Chemical Engineering, IIT Kanpur

✉ hrsharma@iitk.ac.in  
in Hrithik1211 | 🌐 Hrithik1211  
☎ +91-7452822787 | 🌐 My Website

## EDUCATION

Year	Degree/Certificate	Institute	CPI/%
2019 - Present	B.Tech	Indian Institute of Technology, Kanpur	7.6/10
2018	Class XII (ISC)	St. Peter's College, Agra	95 %
2016	Class X (ICSE)	St. Peter's College, Agra	95.6 %

## ACHIEVEMENTS

- Received **Pre-Placement Offer** from **GetRIA Technology** based on performance towards the end of the internship. 2022
- Secured **All India Rank of 5074** in **Joint Entrance Examination (JEE ) Advanced** among 0.2 million candidates. 2019
- Secured **All India Rank of 4229** in **Joint Entrance Examination (JEE ) Mains** among 1.5 million candidates. 2019
- Secured **All India Rank 1** in **NAEST**, an **IAPT** (Indian Association of Physics Teachers) **national-level** competition. 2017

## INTERNSHIP EXPERIENCE

**SOFTWARE DEVELOPMENT INTERN: GetRIA Technology** | Received PPO May'22 - Jul'22

- Collaborated with the **front-end** team to create Career Page and Job Portal in **ReactJS** as well as to expand test coverage.
- Tested the dynamic features of the website by writing **Unit** and **Integration Test** cases using **JEST** and **RTL**.
- Developed the **Career Page** and integrated it with the database to retrieve data with **Search & Filter** options for Job Search.
- Built the **Job Portal** and integrated it with **Google APIs** to parse data to styled **JSX** directly from **Google Docs** and **Sheets**.
- Created a **timed format memory-based Card Flip game** in **ReactJS** during the training week and **hosted** it on **GitHub** 🌐

**SOFTWARE DEVELOPMENT INTERN: DronStudy** Jul'20 - Aug'20

- Developed a **web-based Multi Level Marketing (MLM)** Software using **JavaScript**, **CSS** and **HTML**.
- Used backend services of **Google Firebase** for Realtime Database, Cloud Storage, and **Authentication**.
- Created **user portal** interface based on their level in the marketing Tree and also their downline.
- Implemented the **level-based structure** of Multi Level Marketing for commission calculation on sale of the product.

## PROJECTS

**TRACKING OF MICROPARTICLES IN COMPLEX MEDIA** | Mentor: Prof. Rahul Mangal UG Project | Jul'22 - Present

- Created an application using **Python** to track the Janus particles and to **identify** their **instantaneous normal vector** in videos.
- Used **OpenCV** library to process the extracted image frames using **medianBlur**, **adaptiveThreshold**, **cvtColor** functions.
- Applied the **Hough Transformation** technique to detect the particles and equator lines on the particles.
- Implemented a **generic algorithm** to convert videos from **Lab Frame of Reference to Particle Frame of Reference**.
- Compiled the processed frames marked with normal vectors into a video along with the trajectory traced by every particle.

**WEB PLATFORM FOR SANSKRIT: SANSKRITSHALA** 🌐 | Mentor: Prof. Suvendu Samanta UG Project | Jan'22 - Apr'22

- Developed the front-end in **ReactJS** for Sanskrit applications such as Shloka Recommendation and Dependency Parser.
- Created **Dependency Parser** which is an **annotation tool** to create gold standard data in **semi-automated** way.
- Built **Shloka Recommendation** tool which recommends Sanskrit Shlokas from **pre-processed** data on search.
- Created **interactive realtime word highlighter** and **graphic visualizations** between the searched and recommended shlokas.

**IDEA DISCUSSION ANDROID APPLICATION: IDEA HIVE** 🌐 Self Project | Jun'21 - Jul'21

- Developed a discussion platform in **React Native** which enables users to create groups, post content and discuss ideas.
- Implemented the **unique username** feature using **Realtime Database** with multiple **user authentication** options.
- Built the **search bar** with **Autocomplete Suggestions** and feature to create and join multiple **public/private groups**.

## RELEVANT COURSEWORK

\* Online

Fundamentals of Computing	Computational Methods	Linear Algebra & ODE	Data Structure & Algorithms*
Introduction to Electronics	Real Analysis & Calculus	Process Control	Applied Probability & Statistics

## TECHNICAL SKILLS

<b>Programming &amp; Scripting:</b>	C, C++, Python, Java, HTML, CSS, JavaScript, SQL, $\text{\LaTeX}$
<b>Frameworks &amp; Databases:</b>	ReactJS, React Native, NextJs, jQuery, Jest, Bootstrap, Firebase, MySQL
<b>Utilities &amp; Tools:</b>	NumPy, Pandas, Matplotlib, Git, Bash, RTL, AutoCad, Android Studio

## COMPETITIVE PROGRAMMING

- Achieved **Maximum Rating of 1591 (Specialist)** on **Codeforces** 🌐 Hrithik\_S with active participation in the contests.
- Achieved **Maximum Rating of 1905 (4 - ★ star)** on **CodeChef** 🌐 hs1211 with active participation in the contests.
- Secured **Global Rank of 159** in CodeChef Starters 24 Division 2 and **Global Rank of 281** in August Lunchtime '22 Division 2.
- Secured **Global Rank of 571** in Codeforces Round #794 Div 2 among **more than 20 thousand** participants.

## POSITIONS OF RESPONSIBILITY

**PROJECT MENTOR: ASSOCIATION FOR COMPUTING ACTIVITIES, IIT KANPUR** Apr'21 - Jul'21

- Mentored a group of **26 IIT Kanpur students** on a Flutter Development project and evaluated them based on Group projects.

**COMPANY COORDINATOR: STUDENT'S PLACEMENT OFFICE, IIT KANPUR** Jul'20 - Apr'21

- Facilitated the scheduling of interviews for **100+ students** and **10+ companies** during the Internship and Placement drive.

## EXTRA-CURRICULAR ACTIVITIES

- Participated and mentored in various **Inter-Pool** competitive events in **Takneek'19** and **Galaxy'20** in IIT Kanpur.