

Academic Qualifications

Year	Degree	Institute	CPI/%
2020 - 2024	B.Tech.- MSE	Indian Institute of Technology Kanpur	6.7/10
2019	Grade XII (CBSE)	Pt.DDUSDV, Kanpur	89%
2017	Grade X (CBSE)	Pt.DDUSDV, Kanpur	9.4/10

Scholastic Achievements

• Bagged Silver Medal among 23 IITs for ISRO's X-Ray Burst Web Automation Challange in Inter-IIT Tech Meet 10.0	2022
• Granted acceptance for active participation in the esteemed Code in Place 2021 initiative hosted by Stanford University	2021
• Ranked 2592nd out of a competitive pool of 100,000 participants in the Google Kick Start Round C computational challenge	2021
• Ranked 5401st out of a competitive pool of 100,000 participants in the Google Hash Code computational challenge	2021
• Participated in Hacktoberfest '22 , merging 4 pull requests for renowned Open Source Organization Casbin's codebase	2022

Professional Experience

Fischer Jordan, New York Software Development Engineering Internship	Jun'23 - Ongoing
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Objective	• To Create and sustain a company's client management portal as a Knowledge Management System (KMS)
Approach	• Enhanced KMS engagement through React.js gamification , Chakra UI utilization , and seamless RESTful API integration • Managed KMS externalization, employing tree shaking, bundling , and advanced optimizations to achieve global modularity • Enhanced performance by optimizing Redux API calls via asynchronous actions, memoization , code splitting techniques • Enhanced UX through real-time WebSocket likes , intricate spreadsheet data flow , and live database synchronization • Collaborated in cross-functional teams , employing Git and GitHub for version control, and contributed to code reviews • Performed comprehensive testing, including unit and end-to-end tests , for bug identification and feature implementation
Impact	• Boosted KMS engagement by 50% through gamification, RESTful API integration, and performance optimization strategies • Led KMS development, fueling a remarkable 60% userbase surge , catering to major firms, including Eagle Stone

Llama Mindfulness Solution, Bangalore Software Engineering Internship	Apr'23 - Jun'23
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Objective	• Engineer a custom Slack app, architect a robust Moodle LMS, and maintain a dynamic WordPress website
Approach	• Developed a robust Node.js backend, skillfully integrating Slack Bolt API for advanced database and analytics • Proficiently integrated external systems through RESTful APIs, enabling seamless data exchange and automation • Expertly configured Moodle plugins, optimizing LMS and database for efficient performance and data handling • Enhanced engagement through effective JavaScript CTA, improving user experience and retention • Led DOM manipulation, creating an advanced admin portal for seamless Moodle API-driven database access
Impact	• Client-Preferred LMS Success: Developed LMS garnered client favor, leading to a remarkable 30% surge in user adoption • Efficient Portal: Implemented admin portal, offering staff a 40% boost in the data retrieval speed and more clear analysis

Vaticinari Solutions, Bangalore Cyber Security Internship Part Time	Apr'22 - Ongoing
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Objective	• Leverage in-depth expertise in Neo4j, Bloodhound , and CVE data analysis to enhance cybersecurity threat mitigation • Contribute by creating essential threat diagrams and a minimum viable product (MVP) to accelerate startup success
Approach	• Proficiency in Neo4j , applying advanced graph database skills to enhance cybersecurity threat analysis • Utilized Bloodhound for meticulous Active Directory permission analysis and graph creation, aiding in threat assessment • Generated and meticulously analyzed Common Vulnerabilities and Exposures (CVE) data , crucial for threat identification • Developed comprehensive threat diagrams to solve problems based on threats, facilitating data-driven decision-making
Impact	• Expertise in Neo4j was used, leading to a significant increase of 30% in user acceptance for advanced threat analysis • Played a pivotal role in startup acceleration by crafting an MVP with critical threat diagrams and data-driven insights

C3i Hub, IIT Kanpur Undergraduate Fellow	Jul'21 - July'22
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Objective	• Utilize developemnt skills to drive innovation, integrating CMS, APIs, and enhancing user experiences in dynamic projects
Approach	• Integrated project's CMS with Drupal 9 using PHP Composer, effectively leveraging LAMP Stack for local server setup • Developed a local Threatmap frontend with React JS and Express.JS, utilizing the L-IQ API for server location tracking. • Spearheaded fullstack fabrication in C3i Hub projects, addressing homepage bugs through CSS/HTML enhancements.
Impact	• Enhanced C3i Hub projects, leading frontend/backend fabrication, fixing homepage bugs with 20% efficiency boost

Artpark Technologies Research Internship	Nov'21 - Feb'22
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Objective	• To excel in an operational role, contributing to team efficiency and enhancing the overall program management
Approach	• Efficiently managed daily classroom operations for the Eklavya program in MS Teams, ensuring smooth program delivery • Thoroughly compiled and analyzed student feedback, significantly enhancing the class performance and program quality • Streamlined critical administrative tasks, such as comprehensive student database creation and a certificate generation • Coordinated invaluable one-on-one mentoring sessions, facilitated the student-mentor interactions and robust support
Impact	• Enhanced program efficiency, resulting in a 20% reduction in administrative workload through streamlined processes • Improved student satisfaction, as evidenced by a 15% increase in positive feedback regarding program organization

Key Projects

ISRO Web Based X-RAY Burst Automation Inter IIT Tech Meet 10.0	Feb'22 - Apr'22
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• Developed a web-based automated system for identifying solar bursts, utilising the ReactJS framework with data segregation features
• Integrated dynamic and interactive features using ReactJS libraries, including ChartJS, for enhanced data visualization and analysis
• Organised curve data by storing specific details in react hooks in JSON to ensure efficient management and easy API calls to the server

- Seamlessly Linked flask based backend RESTful APIs with using Axios, offering an interactive interface for data display and exploration
- Led end-to-end product documentation and orchestrated the development of a user journey and research, ensuring project success
- Won a Silver Medal in the mid-prep event, with IIT Kanpur's contingent securing the 2nd position in the overall GC

TA Allotment System Supervised By- Proff. Shikhar Krishan Jha	Jan'22 - May'22
<ul style="list-style-type: none"> • Developed a Teaching Assistant allotment portal, utilizing Node.js, Express, and MongoDB for backend operations • Fortified security with JWT-based authentication, meticulous authorization, and email-based login for enrolled students • Empowered professors to add courses via secured API endpoints, ensuring stringent data integrity and access control • Utilized Nodemailer, bcrypt, and JWT for secure email, password hashing, and authentication, ensuring robust data protection • Conducted extensive research and crafted a user-centric UI, optimizing the user experience for enhanced usability and engagement 	

Journal Scrapper for Data Mining Supervised By- Proff. Shikhar Krishan Jha	Jul'22 - Dec'22
<ul style="list-style-type: none"> • Automated system for fetching .ris/.bib files, extracting author details programmatically, and optimizing data retrieval processes • Tlplemented a dynamic anti-bot system, employing rate limiting and token rotation for scraping resilience • Explored alternative data aggregators like Semantic Scholar and Microsoft Academic Graph for more reliable data sources • Proficiently conducted NER (Named Entity Recognition) to extract author entities and DOI URLs from scholarly articles • Seamless connectivity between the Flask app and frontend was established through HTTP or other REST-based API calls via backend • Harnessed Scopus Cited By API to implement the citation counts of input journals, enhancing our tool's functionality and data accuracy 	

Machine Learning Project Course Project CS771	Jan'22 - Apr'22
<ul style="list-style-type: none"> • Learnt and developed various linear models like Linear SVC & Logistic Regression to crack a simple and advanced XORRO PUF • Cracked advanced XORRO PUF with 99% accuracy using a simple linear model and tuning regularization strength & learning rate • Learnt various non-linear models like Decision Trees and implemented them to play a hybrid game of Hangman and Wordle • Achieved 100% accuracy with average query rate of 3.99 applying maximum entropy gain as the splitting criterion of decision tree • Implemented various linear and non-linear models for calibrating an electrochemical air quality sensor using Machine Learning • Identified Elastic Net as the best linear model and Extra tree regressor as the best non-linear model for the calibration of the sensor • Obtained mean absolute error of 1.67 for O3 and 1.01 for NO2 by hyperparameter tuning using cross validation & feature engineering • Obtained MAE of 1.67 and 1.01 for O3 and NO2 identifying Elastic Net and Extra tree regressor as best linear and non-linear models 	

Conway's Game of Life Code in Place'21 Stanford University	📅 Apr'21 - Jun'21
<ul style="list-style-type: none"> • Completed Stanford University's CS106a, a foundational programming course. Applied Karel for algorithmic problem-solving, enhancing problem-solving skills • Initiated work on Conway's Game of Life Algorithm, exploring its potential for simulating complex population growth scenarios • Developed a Python simulation of the game using pygame and numpy libraries. Created random data points to model dynamic population growth demonstrating proficiency in array manipulation and GUI development • Engineered a system where each cell's output represented a random population size, demonstrating versatility in algorithmic modeling and simulation utilizing terms like "cellular automaton," "state transition," and "neighborhood configuration" • Gained proficiency in image processing, encompassing image scanning, interpretation, and manipulation techniques 	

SnT Summer Project Game Dev Society	Jun'21 - Sept'21
<ul style="list-style-type: none"> • Collaboratively developed a 3D simulation game during a semester-long project, employing a diverse toolset: Blender for 3D design, Unity as the environment, and VS Code for C# making the charecter depth functions to add physical aspects • Utilized C# to script player movement and combat mechanics, showcasing proficiency in game development and coding • Personally contributed to character animation using Blender, enhancing the immersive nature of the gameplay environment • Committed to delivering a compelling 3D gaming experience, combining technical and creative skills in a dynamic team setting 	

Self Inspired Projects

Security Based Honeypot System	🕒 May'22 - July'22
<ul style="list-style-type: none"> • Employed HoneyLambda for serverless deployment using Python, responding to malicious link activity, leveraging AWS storage • Integrated Slack API to relay warning notifications, enhancing threat detection and incident response capabilities • Utilized Cymon API v2 to generate comprehensive threat intelligence summaries, strengthening security analytics and insights • Explored the creation of diverse honeypotens, focusing on email-triggering variations for cybersecurity purposes. • To formulate a business strategy to maximize profits by strengthening relations with regional and international clients To perform the 	

Content Management System (MERN Stack)	🕒 Nov'22 - Dec'22
<ul style="list-style-type: none"> • Built MongoDB middleware CMS for seamless frontend-backend integration, enhancing versatility and performance • Designed intricate, adaptable schemas for versatile data management across diverse projects, ensuring scalability and efficiency • Engineered secure MERN stack APIs for reliable and encrypted data transmission, ensuring seamless data manipulation • Enabled seamless API connectivity across various projects, elevating scalability and functionality for diverse initiatives • Engineered middleware to bridge frontend-backend, bolstering diverse application performance, connectivity, and robustness 	

Positions of Responsibility

Head, Web & App, Techkriti'23 29 th Edition: Annual Technical and Entrepreneurial Festival of IIT Kanpur	June'22 - March'23
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Leadership	<ul style="list-style-type: none"> Spearheaded a 4-tier team of 80+ organizers, 500+ volunteers to conduct 29th edition with a 30000+ footfall Led a diverse 400+ member cross-functional team, showcasing leadership in marketing, finance, design, and other domains
Initiatives	<ul style="list-style-type: none"> Revamped server, implemented 10+ portals, linked via a centralized backend, optimizing scalability, performance, and UX Spearheaded a backend server for 10+ Techkriti 23 festival websites, optimizing efficiency and resource management Collaborated with design team to create user-friendly designs for Techkriti's websites, receiving 30k+ unique clicks Managed vendor collaborations, contract negotiations, and quality control for timely production of materials Led a 400+ member team across diverse domains, orchestrating tasks in marketing, finance, design, and more. Analyzed and optimized a large React project's bundle size, configuring Webpack for asset compression Collaborated with developers to plan and implement project features, including robust user authentication and security Reposioned E-Conclave to conduct events focused on technopreneurs leveraging it for INR 9 Lacs of sponsorship Conceptualized digital markeng (growing at 30% YoY) focused on chat-bot, app, and website-based targeng
Impact	<ul style="list-style-type: none"> Effectively managing a monthly traffic of 350,000 views and seamlessly handling 29,500 views in a single day in 3 months Maintained database of 14,500+ active users across the nation. Got 400,000+ view on the main website in over 3 months Achieved 30% YOY growth by the formulated strategies to enhance digital presence for 10+ corporates Garnered an additional reach of 1 million through four revamped social media strategies focused on the youth Initiated conduction of social campaigns BLISS and HOPE on PAN India level in collaboration with various NGOs

Web Secretary, Hall Executive Committee | Hall of Residence 3

Jun'22 - Apr'23

- Developed automation portal using MEAN stack, enhancing operations and user experience through seamless technology integration
- Organized and managed various of hall activities, fostering a vibrant community and ensuring a seamless living experience for residents
- Implemented Gmail server for mass email distribution to 1000+ students with automated mailing list for efficient communication

Secretary, Web Division | Science and Technology Council IIT K

Jun'21 - May'22

- Worked on life at IITK full stack project to serve campus community a full fledged all in one services
- Implemented OAuth using firebase backend to provide encrypted, secure and easy authentication

Academic Mentor ESC101 | Counselling Service

Sep'21 - July'22

- Guided 150+ students through ESC101. Took sessions and individual mentored students to clear their doubts and excel in the exam

Student Guide | Counselling Service

Sep'21 - July'22

- Facilitated the seamless transition of six freshman students into campus life by serving as a dedicated Student Guide and mentor

Design Secretary | Games and Sports Council | IIT Kanpur

Apr'21 - Apr'22

- Designed 40+ multiple posters, brochures, templates, booklets for various online events and workshops arranged by GnS council
- Arranged various council activities for campus community like cycling trips, adventure sports, online Esports events, chess events

Technical Skills & Relevant Courses	
Languages: C, C++, Python, HTML, Javascript, Typescript, C#, PHP Softwares: MATLAB, AutoCAD, Figma Frameworks: AngularJS, Reactjs, ExpressJS, NodeJS, NestJS, NextJS, Django, Flask Services: Mongoddb, PostgreSQL, Docker, AutoCAD, SQL, git, github, Unity, Apache, XAMPP, LAMP, AWS, nginx Libraries: numpy, networkX, pandas, selenium, BeautifulSoup, driver, tensor flow, scikit, OpenCV	Probability & Statistics Linear Algebra & Differential Equations Psycho-linguistics Industrial Internet of Things Introduction to Machine Learning Fundamentals of Computing Introduction to Electronics Introduction to Cognitive Science

Extra-Curricular Activities

Managerial	<ul style="list-style-type: none"> Organised Mega Blood Donation Drive in 3 venues across Kanpur City with 300+ volunteers Conducted a campaign "No One Sleeps Hungry" with Robin Hood Army to serve over 3300 people in Kanpur Secured third position among 50+ teams in Pitch deck competition by ECell IIT Kanpur in 2021 Worked as secretary in film club, wrote 5+ scripts, directed 2 movies, arranged competitions for the community 	2023 2022 2021 2021
Technical	<ul style="list-style-type: none"> Secured 2nd Position in district level web development competition in Harmony'18 Led School Technical Festival as a Technical Head, created fest brochures, website, maintained sponsorship 	2018 2018