SWAYAM GUPTA

Fourth Year Undergraduate · Material Science & Engineering
Indian Institute of Technology, Kanpur

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EDUCATION

Year	Degree	Institution	Score
2020 - Present	B.Tech, MSE	Indian Institute of Technology, Kanpur	6.31/10.0
2019	CBSE – XII	Pt. Deen Dayal Vidyalaya, Kanpur (CBSE)	89%
2017	CBSE – X	Pt. Deen Dayal Vidyalaya, Kanpur (CBSE)	9.4/10.0

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*
- Participated in **Hacktoberfest '22**, merging 4 pull requests for renowned **Open Source** Organization **Casbin's codebase** *2019*

WORK EXPERIENCE

Fischer Jordan, New York *Jun'23 - Present*
Software Development Engineering Internship
- Enhanced the **KMS** engagement through React.js **gamification**, Chakra UI utilization, and a seamless **RESTful API** integration
- Managed KMS **externalization** & employing the **tree shaking**, **bundling**, advanced optimizations to achieve a global modularity
- Enhanced performance by optimizing Redux API calls via **asynchronous actions**, **memoization** and code splitting techniques
- Performed comprehensive **testing**, including unit and **end-to-end tests**, for **bug identification** and feature **implementation**
- Led development of KMS, fueling a remarkable **60% of userbase surge**, catering to the major firms, **including Eagle Stone**

Llama Mindfulness Solution, Bangalore *Apr'23 - Jun'23*
Software Engineering Internship
- Developed Node.js backend, integrated **Slack Bolt API** for slack app features integrated **external systems** through RESTful API
- Expertly configured various **Moodle plugins**, **optimizing LMS** and **SQL database** for efficient performance and **data handling**
- Led **DOM manipulation** and created an advanced admin portal for seamless Moodle API-driven user management database access
- Client-Preferred **LMS Success**: Developed **LMS** garnered client favor, leading to a remarkable **30% surge** in userbase adoption

Vaticinari Solutions, Bangalore *Apr'23 - Ongoing*
Cyber Security Internship — Part Time
- Played a pivotal role in startup acceleration by crafting an **MVP** with critical **Neo4j threat diagrams** and **data-driven** insights
- 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 a threat identification
- Expertise in **Neo4j** was used, leading to a **significant** increase of **30% in user acceptance** for advanced threat analysis on graphs

C3i Hub, IIT Kanpur *Jul'21 - Jul'22*
Undergraduate Fellow
- Integrated project's **CMS** with **Drupal 9** using **PHP** Composer, effectively leveraging **LAMP Server** Stack for local server setup
- Developed a Threatmap frontend with **React JS** and Express.JS, utilizing the **Location-IQ API** for all server's location tracking
- Spearheaded fullstack fabrication in C3i Hub projects, addressing **homepage** bugs through directory's **HTML/CSS** enhancements

SKILLS

Languages: C, C++, Python, Javascript, Typescript, C#, PHP
Frameworks: AngularJS, ReactJS, VueJS, ExpressJS, NodeJS, NestJS, NextJS, Django, Flask
Services: Mongodb, PostgreSQL, Docker, SQL, git, github, Apache, XAMPP, LAMP, AWS, nginx, Neo4j
Libraries: numpy, networkX, pandas, selenium, beautifulSoup, driver, tensor flow, scikit, OpenCV
Software: MATLAB, AutoCAD, Figma, Unity

KEY PROJECTS

Machine Learning Project *May'22 - July'22*
Course Project CS771
- Cracked advanced **XORRO PUF** with **99% accuracy** using a linear model and **tuning** regularization strength & learning rate
- Achieved **100% accuracy** with average query **rate of 3.99** applying max entropy gain as the splitting criteria of **decision tree**
- Identified **Elastic Net** as the best linear model and Extra tree regressor best **non-linear** model for the calibration of the sensor
- Learnt various non-linear models like **Decision Trees** and implemented them to play a **hybrid game** of Hangman and Wordle

ISRO Web Based X-RAY Burst Automation *Feb'22 - Apr'22*
▤ Inter IIT Tech Meet 10.0
- Developed **web automated system** for identifying **solar** bursts, utilising the **ReactJS framework** with data segregation features
- Organised curve data by saving specific details in **react hooks** in **JSON** to ensure smooth management and API calls to the server
- 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 Meet**

Journal Scrapper for Data Mining *Jul'22 - Dec'22*
Supervised By- Proff. Shikhar Krishan Jha
- **Automated** system for fetching **.ris/.bib** files, extracting author details programmatically, and optimizing data retrieval processes
- Proficiently conducted **NER (Named Entity Recognition)** to extract author entities and **DOI URLs** from scholarly articles
- Used Scopus **Cited By API** to implement citation counts of **input journals**, enhancing our tool's functionality & data accuracy

Teaching Assistant Allotment System *Jan'23 - May'23*
Supervised By- Proff. Shikhar Krishan Jha
- Developed the **Teaching Assistant allotment portal**, utilizing **Node.js**, **Express**, and **MongoDB** for server side operations
- Fortified security with **JWT-based authentication**, meticulous authorization, and **email-based login** for the enrolled students
- Utilized **Nodemailer**, bcrypt, for secure email, password hashing, and authentication, ensuring robust data encryption & protection

POSITIONS OF RESPONSIBILITY

Head Web & App, Techkriti'23 *Jul'22 - May'23*
- Led a diverse **400+ member** cross-functional **team**, showcasing **leadership** in **marketing**, **finance**, **design**, and other domains
- **Revamped** server, implemented **10+ portals**, linked via a centralized backend, **optimizing scalability**, performance, and UX
- Analyzed and optimized a large repository of MERN Stack product's bundle size, configuring **Webpack for asset compression**
- Managed **350K+** monthly views, **30K+** daily, maintained 15K+ user database, and achieved **30%** YOY growth for 10+ corporates

RELEVANT COURSES

Fundamentals of Computing	Probability & Statistics
Introduction to ML	Linear Algebra and ODEs
Industrial Internet of Thing	Introduction to Electronics
Psycho-linguistics	Introduction to Cognitive Science

EXTRA CURRICULAR

- Guided **six freshmen** through their transition to campus *2021*
- Mentored **150+ students in ESC101**, helping them excel *2022*
- 3rd, **Pitch Deck**, Entrepreneurship Cell IITK *2021*
- Conducted **food drive for 3300+** people in **Kanpur** *2022*
- Organised **Blood Donation Drive** across **Kanpur** *2023*