



# IKSHITA AGARWAL | 20CE36007

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## EDUCATION

Year	Degree/Exam	Institute	CGPA/Percentage
2025	Dual Degree, Civil Engineering	Indian Institute of Technology, Kharagpur	7.96
2020	Class XII, CBSE	Our Lady of Pillar Convent School	95.4%
2018	Class X, CBSE	Our Lady of Pillar Convent School	91.8%

## INTERNSHIPS AND PROJECTS

### Indian Space Research Organization (ISRO) | Project Intern [Dec '23 - Jan '23]

Objective: Develop a web app to automate the vegetation cover extraction from satellite images using Deep Learning and Image Processing

- Deployed a web-app integrated with **U-Net**-inspired deep learning model for vegetation classification in Resourcesat satellite imagery
- Established a validation accuracy of **93.84%** in delineating 'No Vegetation' and 'Vegetation' across diverse landscapes of Indian States

### Techno-Economic Assessment for Biofuel Production | Prof. Brajesh Kumar Dubey [Aug '23 - Nov '23]

Objective: To optimize the techno-economic viability and sustainable implementation of hydrothermal carbonisation plants in West Bengal

- Delivered a comprehensive techno-economic evaluation to determine the economic feasibility of hydrothermal carbonisation plants
- Optimized Hydrothermal Carbonisation Plants' supply chain that cuts costs by **15%** and boosts efficiency by **20%** for impactful results

### Defence Research and Development Organization (DRDO) | Summer Intern [May '23 - Jul '23]

Objective: To develop a License Management System to enhance software license monitoring and management for efficient operations

- Programmed a user-friendly interface using **Java** and **Swing** while utilizing **MySQL** for efficient license-related data management
- Attained reduction in response time by utilizing User Datagram Protocols for seamless real-time and efficient communication

### Tricy | Product Management Intern [Jun '22 - Aug '22]

Objective: To actively support the Product Manager in driving business growth and success through effective product lifecycle management

- Developed and executed **Go-To-Market strategy**, collaborating with cross-functional teams throughout the product development
- Conducted research on **UI/UX principles** and applied them to develop comprehensive **20+ web and mobile** application wireframes

## COMPETITIONS

### Expiry Date Tracker | WaffleHacks 2023

Objective: To develop a user-friendly web app to efficiently optimize food inventory management and effectively reduce food waste

- Created user-friendly mobile-first web app (WasteNot) using **MERN Stack** to effectively manage food inventory and reduce food waste
- Integrated fresh produce detection and achieved validation accuracy of **95.44%** using **Convolutional Neural Network** architecture
- Devised a **reward-based system** and provided carbon footprint information to incentivize sustainable food management practices

### Time Series Analysis | General Championship Data Analytics 2023

- Performed extensive **EDA** on 25 sensor data, uncovering patterns and correlations, enhancing accuracy through feature engineering
- Implemented and **fine-tuned RNN** architectures, such as **LSTM**, **BiLSTM**, **vanilla RNN**, and **GRU**, to enhance forecasting capabilities
- Consolidated **61.33% accuracy** using **LSTM with Time Distributed Layer**, effectively capturing temporal patterns in the sensor data

## SKILLS AND EXPERTISE

**Languages/Libraries:** Python | Java | C++ | HTML/CSS | Javascript | React.js | NumPy | Matplotlib | Pandas | Scikit-learn | Tensorflow

**Tools and Softwares:** MySQL | PowerBi | Adobe Photoshop | Latex | Git | Notion | JIRA Confluence | Figma | Jupyter | Anaconda

## AWARDS AND ACHIEVEMENTS

- Secured an overall **gold** medal in the **Inter-IIT Tech Meet 2023** and made significant contributions to the GradCapital High Prep Event
- Won the **first** position in Intra-Hall **Data Analytics** Competition of Sarojini Naidu/Indira Gandhi Hall of Residence out of **50+** teams
- Qualified for **semifinals** of SmartIDEathon among **200+** teams, a **national-level pitch deck** competition organized by GITAM University

## COURSEWORK AND CERTIFICATIONS

**Academic Courses:** Programming and Data Structures\* | Probability and Statistics | Machine Learning Foundations and Applications\* | B-Plan Development | Environmental Impact Assessment | **MOOCs:** Machine Learning A-Z: Python [\* Course with additional laboratory component]

## POSITIONS OF RESPONSIBILITY

### Advisor | Kharagpur Open Source Society | IIT Kharagpur [Jun '23 - Present]

- Directed Kharagpur Winter of Code (**KWoC**), a month-long programme similar to **GSoC**, saw the participation of over **2000+ students**
- Hosted various hands-on workshops to introduce freshers to contributing to open source softwares with a footfall of over **350+ students**
- Overlooked the student recruitment process of over **320+ students** and managed a team consisting of **30+** executives and CTMs

### Secretary | Technology Students' Gymkhana | IIT Kharagpur [Aug '21 - Apr '22]

- Steered a **budget of 6.2 Lakhs** for events and competitions, coordinating with institute staff under General Secretaries' supervision
- Organized **Samsung Innovation Award** - IIT Kharagpur Chapter to recognize innovative projects in collaboration with Samsung
- Co-ordinated and maintained logistics for the IIT Kharagpur team, which finished off winning **gold** in the **Inter-IIT Tech Meet 2022**
- Executed **12** intra-IIT events in **8** months along with 3 fellow secretaries, overseeing funds, logistics, and managing **2500+ participants**

## EXTRA CURRICULAR ACTIVITIES

- Ranked **Top 5** in PM Schools' Product Challenge, aimed to understand Swiggy's casual user behavior, and convert them to purchasers
- Part of **bronze** winning General Championship Groups team of Sarojini Naidu/Indira Gandhi Hall of Residence (academic year 2022-23)