

# Anurag Anand

3rd year undergraduate at IIT Kharagpur

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## EDUCATION

- **Indian Institute of Technology, Kharagpur** *November 2021 - April 2025*  
*Bachelor of Technology*
- **D.A.V. Public School, Bistupur, Jamshedpur** *April 2019 - April 2021*  
*Central Board of Secondary Education (CBSE) - Class XII*
- **D.A.V. Public School, Bistupur, Jamshedpur** *April 2019*  
*Central Board of Secondary Education (CBSE) - Class X*

## SKILLS AND EXPERTISE

- **Languages:** Java, Python, JavaScript, C++, C, TypeScript, HTML, CSS
- **Libraries/Frameworks:** Spring, ReactJS, NextJS, Django, PyTorch, Scikit-Learn, SciPy, Tensorflow, Keras, OpenCV
- **Tools:** AWS, Springboot, Maven, Docker, Git, Jupyter, RabbitMQ, MySQL, GraphQL

## INTERNSHIPS

- Synthax.ai** *(Nov 2023 - Present)*  
Software Engineer *London, United Kingdom (Remote)*
- Developed an **ICD-10-based LLM** using **OpenAI Whisper** along with fine-tuning using **PyTorch** and **CUDA** for speech recognition and accurate transcription for automated medical consultation
  - Conducted **prompt engineering** to optimize model performance and accuracy in medical data interpretation
  - Constructed the backend using **Java Spring** and utilized **AWS DynamoDB** for scalable database management
  - Developed the frontend using **React** and **Next.js**, ensuring a responsive interface and seamless user experience

## PROJECTS

- Shiftbank | OpenSoft General Championship, IIT Kharagpur** *(Mar 2023 - Apr 2023)*
- Developed the frontend of the fintech application using **ReactJS** and **NextJS** for seamless payment and analysis
  - Used **Zero Shot Classification** leveraging the **DistilBART** language model and MultiNLI inference engine for effective categorization of various transactions based on their descriptions, enhancing organization of financial data
  - Built a RESTful API using **Django** Rest Framework and utilized **RabbitMQ** for synchronization of microservices
- Exploratory Analysis and Clustering of Soil Composition Data** *(Nov 2022 - Dec 2022)*  
*Course project under Prof. Manjira Sinha, IIT Kharagpur*
- Performed **Hierarchical Agglomerative Clustering** on a dataset consisting of soil samples from various districts across India, analysing the percentage composition of essential elements to uncover aggregation patterns
  - Applied **hierarchical clustering** and visualized breakpoints through a dendrogram using **SciPy** and **Matplotlib**
  - Performed **Agglomerative Clustering** and compared different linkages by showcasing the results using **Seaborn**
- Path Planning using RRT\* Connect Algorithm for Robotic Navigation** *(May 2022 - Jun 2022)*
- Implemented the **RRT\* Connect** algorithm using **Python** for effective path planning in challenging environment
  - Designed a GUI using **OpenCV** to simplify user input of start and target points along with visual path planning
  - Utilized **NumPy** for efficient numerical operations to implement path shortening and collision avoidance techniques

## POSITIONS OF RESPONSIBILITY

- Sub Head, Web Team | COMPOSIT IIT Kharagpur** *(September 2022 - April 2023)*
- Responsible for the conduction of India's largest materials science fest, COMPOSIT, with **800+** participation
  - Developed and administered the official website of COMPOSIT 2023, ensuring seamless organization of the fest
  - Collaborated in administering event registrations via the website to facilitate smooth participation in all events

## AWARDS AND ACHIEVEMENTS

- Awarded the prestigious **Tata Steel Millenium Scholarship** for excellent performance in JEE Advanced 2021
- Achieved **All India Rank 6178** in **JEE Advanced 2021** examination out of a total of 0.26 million candidates
- Finished second runner-up in the **BizTech Quiz** competition organized by Spring Fest 2022, IIT Kharagpur
- Recipient of the prestigious Super Achiever (International Winner) title at **Tata World Young Expressions 2019**

## EXTRA-CURRICULAR ACTIVITIES

- Member of the **silver-winning** OpenSoft team for the **Inter-Hall Technology General Championship 2023**
- Active member of the **IIT Kharagpur Quiz Club**, as well as a regular participant in various quiz competitions