



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2024	M.TECH Dual Degree 5Y	IIT Kharagpur	9.20 / 10
2019	Maharashtra State Board (Class 12)	Shubham Raje Junior College	92.46%
2017	AISSE (CBSE Class 10)	D.A.V Public School Thane	10 / 10

PUBLICATIONS

- An Evaluation Framework for Legal Document Summarization | 13th Language Resources and Evaluation Conference (LREC 2022)**
 - Developed a new summarization metric, which takes the help of **intent** of the document for the evaluation of generated summary
 - Achieved **better** relevance and overall human satisfaction scores as compared to other automated metrics such as **BLEU** and **ROUGE-L**
 - Obtained highest **spearman rank correlation** of **0.34** for the proposed metric by comparing it with automated metrics by **human scores**
- Fine-grained Intent Classification in the Legal Domain | 36th AAI conference on Artificial Intelligence (AAAI 2022)**
 - Proposed a new dataset **93** legal documents & annotated phrases for the task of fine-grained as well as coarse grained intent classification
 - Analyzed the performances of **transformer-based** models for **extracting intent phrases**, and **classifying** documents into 4 classes
 - Achieved an accuracy of **90.2% & 75.6%** for coarse and fine-grained intent classification by establishing a strong baseline using **JointBERT**
- Leveraging Pre-trained Language Models for Key Point Matching | Empirical Methods in Natural Language Processing 2021**
 - Achieved a best MAP score of **0.9096** and **2nd place** on the **global leaderboard** for the identification and ranking of relevant key points
 - Designed and implemented a pre-trained language model based architecture to predict the match score for key point and argument pairs
 - Improved the MAP by **0.1** by adding syntactic features such as **POS Tags**, **TFIDF scores** etc, & data augmentation using external datasets

INTERNSHIPS

- Complex Networks Research Group | Indian Institute of Technology Kharagpur | Advisor - Prof. Pawan Goyal** **Dec 2021 - Present**
FPDM: A Fast Pre-training Technique using Document-Level Metadata for Reliable Customer Support Question Answering
 - Developed a **fast pretraining mechanism** for transformer based document encoder using **document metadata** and **product taxonomy**
 - Proposed a novel loss function using a combination of **triplet margin** (anchor, similar and dissimilar documents to it) and **hierarchical loss**
 - Leveraged **FPDM BERT**, **RoBERTa** models on QA datasets like SQuAD 2.0, TechQA to observe an improvement of **1%** Macro F1 score
- School of Information and Communication | Rutgers University | Advisor - Prof. Kiran Garimella (Ex-MIT)** **Oct 2021 - Jan 2022**
Racism and Violent Incidents Detection in Historical Archives
 - Conducted an **analytical study** of violent incidents throughout the country over a period of **100** years with the help of newspaper articles
 - Achieved an accuracy score of **94.5%** by implementing **BART**, a pre-trained Transformer as classifier of violent and non-violent articles
 - Analysed the causation of violent incidents and riots in the country by collaborating with a team from **ISB Hyderabad** and **MIT**
- Financial Computing and Analytics Group | University College London (UCL) | Advisor - Prof. Philip Treleaven** **Jan 2021 - Jun 2021**
Governance Pulse: AI for real-time governance
 - Formulated a **Governance based analytical project** providing real-time monitoring information to the Board members of company
 - Achieved an **RMSE** score of **0.258** by developing a **Time - Series** model to forecast stock price using **LSTM** on London Stock Exchange data
 - Implemented **NER** tagging to extract important entities from documents such as name, place, and organization using **Spacy** NER tagger

AWARDS AND ACHIEVEMENTS

- Achieved an All India Rank of **1367** and **4463** in JEE Advanced 2019 and JEE Mains 2019 out of 945k and 236k students respectively
- Part of **Gold** winning NLP subteam in the **Digital Alpha' SEC Filing Analyzer** for SaaS companies event in **Inter IIT Tech Meet 10.0**
- Selected as an **Indian Delegate** to represent IIT Kharagpur at **Harvard US-India Initiative 21** amongst more than **2000** applicants
- Selected to be a part of **Amazon Machine Learning Summer School 2022** among the top **3000+** engineering students from all over India

POSITIONS OF RESPONSIBILITY

- Technology Robotix Society | Indian Institute of Technology Kharagpur** **Sep 2019 - Present**
 - Spearheading a **4-tier** team of over **45** robotics enthusiasts in spreading the culture of Robotics & Artificial Intelligence throughout India
 - Organised several robotics **events, tutorials, and workshops** with an annual footfall of **2000+** students achieving a **20% YOY** increment
 - Successfully organised **Winter School of AI Robotics** sponsored by **IEEE** Kharagpur and mentored **500+** freshers in a **14-day** workshop
- Kharagpur Data Analytics Group | Indian Institute of Technology Kharagpur** **Sep 2020 - Present**
 - Launched workshops on **Python/ML/DL** for students across the country & organized **research paper-reading sessions** for 100+ students
 - Organized **Kharagpur Data Science Hackathon & Summer AI Challenge** with **2200** and **1600** registrations and prize pool of **60000 INR**
 - Conducted **Panel Discussions** on Research Internships in AI/ML & **Guest Lectures** on Role of Data Science in Business Problems

SKILLS AND EXPERTISE

Programming Languages & Software: Python | C | C++ | MATLAB | Latex | Github | Streamlit | MS-Powerpoint | MS-Excel
Libraries & Tools: PyTorch | Tensorflow | HuggingFace | Spacy | Numpy | Pandas | Regex | Matplotlib | Seaborn | NLTK | Neptune

COURSEWORK INFORMATION

CS & ML: Probability and Statistics | Programming and Data Structures | Machine Learning Foundations and Applications | Natural Language Processing | Deep Learning Foundations and Applications | Machine learning for Earth System Sciences | Artificial Intelligence
Others: Control Systems Engineering | Digital Electronics | Signals and Networks | Mathematics 2 (Linear Algebra) | Transform Calculus

EXTRA CURRICULAR ACTIVITIES

- Mentored five freshmen students under the **Student Welfare Program**, under the aegis of the Dean of Student Affairs, IIT Kharagpur
- Bagged **1st** Position in **Data Analytics Challenge** amongst more than 500 students conducted by **SDS, BIT Mesra** held in March 2021
- Awarded **Best Fresher** in **Nexus**, a **Computer Vision** event in Kshitij 2020, for building an autonomous bot which detects shapes and path