

Utkarsh Patel

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EDUCATION

- Indian Institute of Technology Kharagpur** Kharagpur, India
• *Bachelor and Master of Technology (Dual Degree); GPA 9.47 / 10*
Major: Electronics & Electrical Communication Engineering; Minor: Computer Science
Jul 2018 - May 2023 (Expected)
- Shah Faiz Public School** Ghazipur, India
• *All India Senior School Certificate Examination (CBSE); Marks 94.8%*
May 2017
- Shah Faiz Public School** Ghazipur, India
• *All India Secondary School Examination (CBSE); GPA 10 / 10*
May 2015

RELEVANT COURSEWORK

Algorithms (T/L), Programming and Data Structures (T/L), Machine Learning (T), Neural Networks (T), Probability and Stochastic Processes (T), Matrix Algebra (T), Speech Processing (T/L)

KEY PROJECTS

- Logical Fallacy Detection to Defend against Online Hate Speech** Feb 2021 — Present
• *Guide — Prof. Mainack Mondal and Prof. Animesh Mukherjee*
Natural Language Processing
 - Created a Corpus of posts related to Politics from online debate portals and social media using Web Scraping libraries like urllib, scrapy, BeautifulSoup, etc.
 - Implemented a Semi-Supervised GAN based learning for Robust Identification of Hate Speech
 - Used BERT as the Discriminator of the GAN; our model outperforms the classical BERT when both are fine-tuned on a small batch (less than 20%) of labeled examples
- Targeted Aspect-based Sentiment Analysis** Dec 2020 — Jan 2021
• *Self Project*
Natural Language Processing
 - Performed Aspect-based Sentiment Analysis by transforming the task into Sentence-pair Classification task via constructing auxiliary sentences from target-aspect pairs
 - Used pre-trained BERT model and fine-tuned it on SentiHood data set
 - Achieved Aspect F1-score of 0.90 and Sentiment AUC of 0.986
- Identification of Autism Spectrum Disorder** Aug 2020 — Dec 2020
• *Guide — Prof. Debasis Samanta*
Machine Learning
 - Worked on the ABIDE data set to extract and process resting state functional MRI data
 - Used correlation-based approach to determine functional connectivity between ROIs
 - Implemented various machine learning models to classify subjects as autism (ASD) patients and typically developing (TD) participants; achieved test accuracy of 0.68 and 0.65 using SVM and KNN classifier respectively

ACHIEVEMENTS

- Academic**
 - Holding **Department Rank 1** among the dual degree students of E&ECE department
 - Changed Department** to E&ECE by acquiring **9.69 CGPA** in the first year
- Google Coding Competitions**
 - Kick Start 2021 Round C:** Global Rank **70** among around 12k contestants
 - Kick Start 2021 Round A:** Global Rank **814** among around 20k contestants

TECHNICAL SKILLS

- Programming Languages:** C++, Python
- Libraries / Frameworks:** TensorFlow, Keras, PyTorch, Scikit-learn, Pandas, LIME, BeautifulSoup, NetworkX
- Softwares / Platform:** MATLAB, Git, L^AT_EX