

DEBAJIT CHAKRABORTY

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EDUCATION

- **Department Of Electronics & Electrical Communication Engineering**
B.Tech. Indian Institute of Technology, Kharagpur, India
- **Senior Secondary Education, Gurgaon, India**

2018 - Present
CGPA : 9.57/10.0
Percentage : 98.2 %

COURSEWORK

Algorithms, Image Processing , Digital Speech Processing, Programming and Data Structures, Matrix Algebra
Natural Language Processing , Probability and Statistics , Applied Machine Learning , Deep Learning Specialisation

WORK EXPERIENCE

- **Project Intern, Complex Networks Research Group, IIT Kharagpur [Code]** May 2020 - August 2020
Exploiting BERT for End-to-end Aspect Based Sentiment Analysis
 - Working on proposing unsupervised model for Sentiment Analysis with help of opinion words and dependency trees.
 - Annotated Custom Dataset of Tourist Reviews, performed sentence level opinion extraction, converted data to xml vice versa.
 - Trained a BERT(on word embeddings armed with transformers)+Linear,GRU,TFM,SAN,CRF for End-to-End Aspect Based Sentiment Analysis on our custom made dataset and performed benchmarking on 7-8 available models to prove robustness.
- **Winter Intern, IIT Delhi [Code]** December 2019 - January 2020
Non-Intrusive Load Monitoring(NILM) using Deep Learning Models
 - Implemented basic Machine Learning and Deep Learning such as CNN,RNN+LSTM,CRF,GRU,RESNET Models on AMPDs dataset and used CNN's on time series data instead of standard approach of RNN's on sequential data.
 - Trained models which predicted which electrical appliances were on given the various active and reactive time series data.
 - Worked on finding Deep Learning solutions for NILM and extensively researched about the various toolkits available such as NILMTK and read about existing solutions on the problems.

PROJECTS

- **RoboCup Small Sized League (SSL) [Code]** April 2019 - Present
Artificial Intelligence Team Member at Kharagpur Robosoccer Students' Group
 - Built cooperative multi-agent systems in the highly dynamic adversarial environment of RoboSoccer and wrote plays for Defenders, Midfielders and Attackers and wrote coordinated plays.
 - Developed a virtual simulator for connecting local cameras with simulation client using ROS and pygame graphic user interface.
 - Developed codebase using Finite State Machine architecture to implement coordinated behaviour in grSim Simulator and established communication between two clients and server using socket programming using TCP/IP protocol .
 - Implemented RRT and RRT* Path Planning Algorithm and used it's data to simulate bots in Robot Operating System (ROS) and ran FIRA bots on mini simulation and organised a contest between 40+ teams all over India.

SKILLS AND EXPERTISE

- Languages Java, Perl, JavaScript, php, C++, C, Python, SQL, xHTML, HTML, CSS , LT-SPICE
- Software & Tools Latex, Linux Shell Utilities, Git, Robot Operating System
- Others Pandas, Tensorflow, Pytorch, Keras, Scikit-learn, tsfresh, tkinter, numpy, Flask, rasa
- Ratings (Max) Codechef : 1891, Codeforces : 1650

AWARDS AND ACHIEVEMENTS

- 2020: Part of the **only team from India(KRSSG)** to qualify for International Robocup, 2020 (Bordeaux, France)
- 2019: Global Rank of **833** in Google Kickstart Round G (2019)
- 2018: Overall **Gurgaon City Topper** as well as School Topper in Science in CBSE (**98.2%**)
- 2018: Amongst the **top 0.0001%** and **0.001%** in JEE Main and JEE Advanced respectively among 1.3 million candidates
- 2018: Amongst the top **0.0001%** in West Bengal Joint Entrance Examination India among 0.25 million candidates
- 2018: Amongst the top **0.005%** in Kishore Vaigyanik Protsahan Yojana Scholar (SX) - Indian Institute of Science, Bangalore
- 2017: Amongst the top **0.0001%** in Kishore Vaigyanik Protsahan Yojana Scholar (SA) - Indian Institute of Science, Bangalore
- 2016: National Talent Search Examination Scholar by Government of India/

POSITIONS OF RESPONSIBILITY

- **Senior Consultant, 180DC IIT Kharagpur Chapter** June 2020 - Present
 - Responsible for interacting with our clients and providing them with consulting advice at cheap rates
 - Writer on Medium Page of 180DC IIT Kharagpur and published article of 'Water Crisis in India'[[Link](#)]
- **Student Mentor, Grimoire of Code** April 2019 - Present
 - Mentoring and guiding a group of 5 first year students get acquainted with competitive programming
 - Co-ordinated and organised several programming contests for the betterment of students.