Aurghya Maiti

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ACADEMIC DETAILS

Indian Institute of Technology Kharagpur
B.Tech in Computer Science and Engineering *Jul'16-Present*
CGPA: 9.76/10

Nava Nalanda High School
Class XII, West Bengal Council of Higher Secondary Education *May'14-May'16*
Score: 95.20%

Nava Nalanda High School
Class X, West Bengal Board of Secondary Education *May'04-May'14*
Score: 96.71%

INTERNSHIP

BigData Experience Lab, Adobe, India
Research Intern *May'19-Jul'19*

- Explored and implemented algorithms for the generation of Bayesian Networks from big data
- Designed and implemented efficient algorithms for the identification and localisation of interventions
- Submitted a paper titled "Dis-entangling Mixture of Interventions on a Causal Bayesian Network Using Aggregate Observation" to Ninth International Workshop on Statistical Relational AI at the 34th AAAI Conference on Artificial Intelligence (AAAI) 2020
- Filing a patent "Causal Ranking of logged visit features responsible for significant shifts in web metrics" for the commercial application based on similar ideas

National Digital Library of India
Backend Development Team *May'18-Jul'18*

- Data extraction from XML, CSV, plaintext, web and compressed sources
- Developed modules for data correction, validation and Unit Testing of modules

PROJECTS

Intrinsic Reward For Multi Agent Competitive Games With Diverse Configurations
Guide : Prof. Niloy Ganguly and Prof. Sourangshu Bhattacharya *Jul'19 - Present*

- Designed a game environment, that captures a scenario where agents with different abilities have to cooperate with members of their own team and compete with others to win
- Emergence of strategies for different players that are optimal under a given scenario
- Designing intrinsic motivation, such that the agent will be able to learn different optimal policies and adapt these strategies according to requirement

Identifying friends and enemies in a Multi-Agent System
Guide : Prof. Niloy Ganguly *Jan'19 - Apr'19*

- Identified that finding friends and enemies may help in a scenario, where role of other agents are unknown
- Emergence of friendly behaviour towards the helping agent and antagonistic behaviour towards the opponent agent in particular hidden role games

Question Generation from RDF graphs via Discriminative Ranking

Guide : Prof. Plaban Kumar Bhowmick *Jul'18 - Nov'18*

- Identification of entities and their relations from the knowledge graph generated from RDF Linked Data
- Extraction of tokens from entities and relationships and generation of ranked list of natural language questions using Discriminative Ranking

Identification of key phrases, classification of identified keyphrases and extraction of relationship between two keyphrases

Guide : Prof. Plaban Kumar Bhowmick *Jun'18 - Dec'18*

- Worked on the SemEval 2017 Task 10: Identification of key phrases, classification of identified keyphrases and extraction of relationship between two keyphrases
- Applied several baseline algorithms including biLSTM-CRF, CNN and attention-based bi-LSTM and also ensemble of several models to solve the task

Suggestion Mining From Online Reviews and Forums

- Applied several models for Text Classification including Statisitical Classifiers, CNN, attention-based bi-LSTM, Hierarchical Attention Network and Graph Convolutional Network(GCN).
- Tried to overcome the problem of imbalance in the data and out-of-vocabulary words and used semi-supervised approaches, so that a large amount of unlabelled data could be used

RELEVANT COURSES

Algorithms-I, Algorithms-II, Probability and Statistics, Linear Algebra, Machine Learning, Knowledge Modelling and Semantic Technologies, Database Management System, Artificial Intelligence, Reinforcement Learning, Image Processing, Natural Language Processing

Online Courses (Coursera): Neural Networks and Deep Learning, Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization, Structuring Machine Learning Projects, Convolutional Neural Networks, Introduction to Deep Learning

CERTIFICATIONS

- **IEEE Certified Winter Workshop on Image Processing and Autonomous Robotics, IIT Kharagpur (2017):** Learned OpenCV, basics of micro-controllers and Arduino and applied them to make self-balancing robot and tracking robots in a video to compute the score achieved by them in a task

AWARDS AND ACHIEVEMENTS

- Rank 2 among 61 B.Tech students from Department of Computer Science and Engineering and Rank 5 among nearly 1334 fourth-year undergraduate students of the Institute
- Qualified for ACM-ICPC Asia Amritapuri Onsite Regionals 2018
- Selected for the KVPY Scholarship, a competitive fellowship awarded by the Department of Science and Technology, Government of India
- Achieved a position among the top 1% in the state in NSEP and was selected for INPhO
- Achieved overall rank 6 and District rank 1 in Class X Board Examination (West Bengal Board of Secondary Education) out of nearly 1 million students

EXTRA-CURRICULUR ACTIVITIES

- **National Service Scheme (NSS):** Involved in volunteery teaching activities to underprivileged children in neighboring villages
- **Content-Writing at National Digital Library:** Worked on solutions for JEE Advanced past year question papers for NDL Repository