

Vedic Partap

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EDUCATION

- **Indian Institute of Technology Kharagpur** India
Bachelor of Technology in Computer Science; GPA: 9.43/10 Aug. 2016 – Aug. 2020
- **O.S.D.A.V Public School** Kaithal, India
Senior Secondary School (C.B.S.E); 93.4/100 Mar.2015 – July. 2016

INTERNSHIP

- **Active Intelligence Pte. Ltd.** Bangalore, India
NLP Research Intern May 2018 - July 2018
 - Improved relation extraction algorithm for constructing the hypergraph to increase the efficiency of the prediction model.
 - Implemented methods to incorporate the hierarchical topic modelling for context-based predictions in the prediction model
 - Build interactive visualization techniques for the knowledge hypergraph and predictions output along with their scores.
 - Developed a system for the evaluation of the model based on the similarity of the predictions with input and goal completion
 - Worked on negation detection and scope resolution and merged it's output with frame semantic parser for reasoning

PROJECTS

- **Effectiveness of Discretizing Quantitative Attributes in Anomaly Detection** Australia
Research Project Mar. 2018 -Present
 - **Guide:** Prof. Mahsa Salehi, Monash University, Australia
 - Devised a method to improve the efficiency of the Local Outlier Factors by using the discretization of the normalized data.
 - Generated synthetic datasets for different parameter to find the conditions for algorithm to give better results.
 - Modified the Local Outlier Factor algorithm in DbSCAN package (R) by adding similarity measures for categorical data.
 - Analysed the effects of discretization on linear models (One Class SVM algorithm) for outlier Detection.
 - **Github Link:** <https://github.com/vedic-partap/Discretization>
- **Swarm Robotics Research Group, IIT Kharagpur** India
Software Team Member Mar. 2017 - May.2018
 - **Guide:** Prof. Pallab Dasgupta and Prof. Somesh Kumar, IIT Kharagpur
 - Designed and implemented the distributed algorithm of swarm intelligence for the coordination of multi-robot systems
 - Build a swarm stimulator for testing, verification and visualization of the algorithms and movement of robots.
 - Work on SLAM for stereo cameras to compute in real-time, the camera trajectory and a sparse 3D reconstruction of the scene in a wide variety of environments.
 - **Github Link:** <https://github.com/Swarm-IITKgp>
- **RheoBot - Dialog System — Microsoft Azure Bot Framework** India
Team Member Mar.2018-Apr.2018
 - Build a Dialog System using Microsoft Azure Bot Framework and LUIS in the Microsoft Code.Fun.Do competition
 - Integrated the wordnik API and datamuse API into the dialog system to answer the queries related to the language.
 - Successfully deployed the dialog system on facebook messenger and Slack for the public use.
 - **Github Link:** <https://github.com/vedic-partap/RheoBot>

ACHIEVEMENTS

- Completed the 5 course specialization in **deep learning** by Prof. Andrew Ng (deeplearning.ai) on Coursera.
- Secured India Rank 61 in **ACM-ICPC Asia-Gwalior Region 2017-18** online Round among 3000+ students.
- One among **7** students selected for the **Student Par Excellence Award** by the Computer Science and Engineering Department
- All India Rank **235** in JEE Advanced 2016 among **0.15 million** candidates.
- Secured **99.99** percentile in JEE Main 2016 among 1.5 million candidate with 301/360 marks.
- Qualified for the Indian National Chemistry Olympiad and Indian National Physics Olympiad conducted by **HBCSE** Mumbai.
- Semester **Topper** among **700** students in first semester at IIT Kharagpur with SGPA - **9.82**.

COURSEWORK

- **Ongoing:** Computer Organization and Architecture, Compilers, Knowledge Modelling and Semantics Technologies, Approximation and Online Algorithms, Speech and Natural Language and Processing, Algorithms-II
- **Previous:** Probability and Statistics, Algorithms I, Software Engineering, Discrete Structures, Formal Language and Automata Theory, Switching Circuit and Logic Design.

SKILLS

- **Languages :** C, C++, Python, JAVA, Javascript, R **Tools :** Git, Matlab, Octave, Tensorflow, Keras
- **Interest Areas :** Natural Language Processing, Deep learning, Algorithm Design