PARTH TIWARI

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EDUCATION

Indian Institute of Technology Kharagpur   *July 2016 - Present*
Department of Industrial and Systems Engineering
Dual Degree (B.Tech + M.Tech)   Overall GPA: 8.44/10

PUBLICATIONS AND CONFERENCES

- *A Modified Skip Gram for Learning Interpretable User Representations using Product Images.* **Parth Tiwari**, Jenny Harding, Manoj Kumar Tiwari. Under review in **IEEE Transactions on Knowledge and Data Engineering**
- Attended the 2nd Winter Nepal School in AI in December 2019. Organised by NAAMII

INTERNSHIPS

University of Alberta   May 2019 - July 2019
Edmonton, Canada   *Research Intern — Guide: Prof Amit Kumar*
- Performed a literature review of Life Cycle Assessment studies for alternative power-trains in the road transportation sector
- Current trend in methodologies and research gaps were identified and an aggregated analysis of GHG emissions was performed

Atlan   May 2018 - July 2018
New Delhi, India   *Data Science Intern*
- Developed a forecasting model using techniques like correlation analysis, clustering, regression and feature selection methods
- Used a **Convolutional Encoder-Decoder** for detecting roads in high resolution satellite images through image segmentation

ACADEMIC PROJECTS

Audio Classification with weak labels— Bachelor's Thesis Project   July 2019 - Ongoing
Department of Computer Science and Engineering   *Guide: Prof. Saptarshi Ghosh*
- Experimenting with semi-supervised and deep learning architechtures for classification of urban sounds with weak labels
- Analyzing performance of various feature extraction methods on a new dataset for urban sound research

Legal Knowledge Graph Embeddings   January 2018 - April 2018
Department of Computer Science and Engineering   *Guide: Prof. Saptarshi Ghosh*
- Used a network embedding similarity based approach to find similar legal cases from a citation network of legal cases and acts
- Applied node2vec, metapath2vec and performed a comparative analysis between the network based and text similarity scores

Live Tweet Classifier   January 2018 - April 2018
Soft Computing Course Term Project   *Guide: Prof. SK Barai*
- Built a hate speech classifier using random word embeddings, LSTMs, attention layers and Convolution Neural Networks
- A chrome extension was developed using this model and hosted on a server to hide hate speech trough live twitter feed

VR Game Development   January 2018 - April 2018
Safety Analytics and Virtual Reality Lab, IIT Kharagpur   *Guide: Prof. Goutam Sen*
- Developed a VR game in **Unity** to statistically analyze the effects of demographics on depth perception based decision making
- The game simulates a 3D environment of a road with moving vehicles, where the player can move freely in any direction

TECHNICAL STRENGTHS

Programming Languages : **Python** (numpy, pandas, keras, pytorch), **R** (dplyr, ggplot, caret), **C/CUDA**, **Julia**
Softwares/Tools : QGIS, CPLEX, Arena, Unity, Git
Databases/OS : MacOS, Linux(Ubuntu), Windows, MySQL

EXTRA-CIRRUCULAR ACTIVITIES AND ACHIEVEMENTS

- Secured an **AIR 4526** in JEE Advanced 2016 and an **AIR 400** in UPTU 2016 (Uttar Pradesh State Engineering Examination)
- **Music Cup Captain** and **Guitarist** representing LBS Hall. Awarded the best bassist in the General Championship 2019.
- **Associate Member** at **Business Club**, IIT Kharagpur. Organised the 5th edition of the 'Indian Case Challenge'.
- Hiking and Photography enthusiast. Awarded the People's choice award in Indiahikes' Trek Photography contest (July 2018)
- Volunteer at National Service Scheme (NSS), where I along with my unit have worked extensively for ensuring primary education in the villages around our campus.