Jeetu Raj

jraj2@illinois.edu | 217.721.9024 | Graduating in May, 2020

EDUCATION

UIUC
MS(Research) in Computer Science
2018 - 2020
Cum. GPA: 4.00/4.00

IIT, DELHI
BTech in Computer Science
2013 - 2017
Cum. GPA: 9.11 / 10.0
Major GPA: 9.116 / 10.0

INTERESTS

Machine Learning
Information Retrieval
Artificial Intelligence

COURSEWORK

UIUC
Deep Learning
Advanced Information Retrieval
Data Mining: Principles and Algorithms
Computer Vision

IIT, DELHI
Artificial Intelligence
Machine Learning
Probabilistic Graphical Models
Computational Neuroscience
Intro to Parallel and Dist. Comp
Operating systems and others

*: Currently pursuing

TEACHING

TA, COL 100, IIT DELHI
Introduction to CS by
Prof. Subodh Kumar
Prof. Huzur Saran

SKILLS

PROGRAMMING
Proficient:
Python • C • C++
Familiar:
Java • C# • SQL

INDUSTRY EXPERIENCE

IBM WATSON | Summer Intern
Advisors: Erik Altman, Shyam Ramji | May 2019 - Aug 2019 | Yorktown, NY
- Worked on the problem of fraud detection in Credit Card Transactions.
- Devised a Deep Learning based solution and compared against ensemble models.
- Dealt with heterogeneous features, extreme class imbalance and anomalies.
- Obtained improved F1 scores over prior art and in process of applying for a patent.

MICROSOFT RESEARCH | Research Fellow
Advisors: S. Sellamanickam, Arun Iyer | July 2017 - July 2018 | Bangalore
- Project titled "Unsupervised representation learning on heterogeneous graphs".
- Devised an online algorithm and tackled issues with representation based ranking.
- Performance of online algorithm within 5% compared to that of static setting.
- Learned representation to be used for a variety of intelligent tasks in Outlook.

ADOBE | Research Intern
Advisor: Sunav Choudhary | May 2016 - July 2016 | Bangalore
- Worked on "Usage-based Prototype Evaluation" for "Mobile User Intelligence".
- Employed language modeling techniques and topic modeling algorithms for solution.

PROJECTS

KNOWLEDGE BASE COMPLETION | UIUC
Advisor: Prof. Jiawei Han | April 2019 - Present
Worked on a Deep Learning solution for Knowledge Base Completion. Obtained improvements using a Graph Convolution based approach integrated with Attention Mechanism. Currently, working on problem related to general Heterogeneous Networks.

GRADUATE RESEARCH ASSISTANT | C3SR, UIUC
Advisor: Prof. Kevin Chang, Prof. Wen Mei Hwu, Dr. Jinjun Xiong
Contributed to projects like MLDatascope and MLModelscope as part of C3SR centre at UIUC. As part of Forward data mining group, contributed to project titled "Weak sup. attention-based Hashtag recommendation for twitter" which is in process of submission.

MITIGATING BIAS IN FACES DATASET USING GAN | UIUC
Advisor: Prof. Svetlana Lazebnik | Jan 2019 – April 2019
Addressed Gender based Bias by performing augmentation using StyleGAN. Worked with IBM DiF dataset with around 2% improvement in accuracy over biased version of dataset.

ML ON FMRI DATASET: TEMPORAL LOBE EPILEPSY | IIT, Delhi
Advisor: Prof. Tapan Gandhi | Jan-July, 2017 | Published @ European Radiology
Designed a system to predict whether an individual has Epilepsy or not using fMRI data. Performed identification and ranking of prominent brain regions responsible for Epilepsy. Publication covered widely by media and also featured on IIT Delhi's homepage.

SCHOLASTIC ACHIEVEMENTS

- Awarded IITD Semester Merit Award by IIT Delhi for being in top 7% students.
- Awarded scholarship for qualifying National Talent Search Exam
- All India Rank - 107(GE) in IIT JEE Advanced 2013 out of 1.4 million candidates

EXTRA CURRICULAR

- Internship for Social Cause: Aga Khan Foundation   Dec, 2016
- Member of Fine Arts Club, IIT Delhi   July, 2013 - July, 2017