

# Rohit Mujumdar

rohitmujumdar@gatech.edu

+1(470)-530-9621

www.rohitmujumdar.com

Atlanta, GA

## Education

---

### Georgia Institute of Technology, Atlanta, GA

Aug 2019 - Present

*Master of Science, Computer Science, Specialization - Machine Learning (GPA : 4.0/4.0)*

**Coursework:** NLP, Machine Learning, Data Science for Epidemiology, Web Search Text Mining, Graduate Algorithms

### Vishwakarma Institute of Technology, Pune, India

July 2013 - May 2017

*Bachelor of Technology, Computer Engineering (GPA : 3.98/4.0)*

**Coursework:** Data Structures, Database Systems, Operating Systems, Distributed Computing, Business Analytics

## Technical Skills

---

**Programming Languages:** Python, Java, SQL

**Libraries:** Pandas, NumPy, Scikit-learn, NLTK, HuggingFace, Prophet, NetworkX, SQLAlchemy, Flask, Matplotlib

**Frameworks/Tools :** PyTorch, IBM Watson, Protege, LATEX, Git

## Work Experience

---

### IBM Research - *Research Intern* (Almaden Research Lab, CA)

June 2020 - Aug 2020

- Developed time series model to forecast resolution time of tickets; over 80% accuracy for more than 230,000 tickets
- Formulated model productionized into demand forecasting module; contributed towards savings of 30 million USD
- Communicated findings to business stakeholders and cross-functional teams; engaged with them to understand client needs
- Filed a patent around employee-task assignment and reskilling with the USPTO (first-author)

### Froot Research - *Data Scientist* (Pune, India)

Sept 2018 - May 2019

- Built a real-time model to cluster incident tickets and to predict trouble trends for an operations analytics dashboard
- Formulated a novel binning technique by extending the k-means clustering algorithm; delivered POC to client Atos
- Designed metrics to ascertain cluster quality and to determine membership of tickets in the clusters

### HSBC Software Development India - *Software Engineer* (Pune, India)

Aug 2017 - Aug 2018

- Built a Java application to interface with backend mainframe systems reducing database query operations time by 50%

## Graduate Research

---

### Computational Data Lab for the Web and Society, Georgia Tech (*Prof. Srijan Kumar*)

Jan 2021 - Present

- Developed a reputation system for Birdwatch, Twitter's note-based community-driven feature to address misinformation
- Designed note-ranking metrics, robust against manipulation attacks; quantified user reliability in writing/rating notes

### Design and Intelligence Lab, Georgia Tech (*Prof. Ashok Goel*)

Aug 2019 - Aug 2020

- Experimented with transformer models to improve question classification of AI Teaching Assistant *Jill Watson (JW)*
- Achieved F1-score of 0.87 with the best performing model; performed qualitative analysis of classification results

## Academic Projects

---

### *Do Scientific Ideas from more Prestigious Universities Spread Faster?*

Sept 2020 - Nov 2020

- Investigated the imbalance in spread of ideas across academic networks caused due to differences in academic prestige
- Formulated novel measures for the subjective concepts of institutional prestige & idea quality
- Simulated epidemiological models on citation network built from Microsoft Academic Graph to trace idea spread

### *Conference Paper Acceptance Prediction*

Feb 2020 - April 2020

- Performed novel feature engineering to assess what features of research papers drive their acceptability to conferences
- Implemented supervised learning models on AllenAI's PeerRead dataset; achieved best accuracy of 65%

### *Semantic Search Engine using a Dynamic Ontology*

Jan 2016 - May 2017

- Built search engine for government schools' e-learning platform; implemented dynamic science ontology as knowledge-base
- Developed algorithm to extract Entity-Relation-Entity triplets from web-scraped data and query into/from ontology
- Optimized ontology querying and storage by devising a similarity-scoring algorithm to compare similar Relations

## Publications

---

### INFORMS, *A Heuristic Approach To Compute Ticket Resolution Time (Best Poster - Honorable Mention)*

Nov 2020

## Graduate Assistantships

---

**Head Teaching Assistant, AI, Ethics & Society, (Prof. Ayanna Howard)**

Jan 2020 - Present

**Teaching Assistant, Knowledge-Based AI, (Prof. Ashok Goel)**

Aug 2019 - Dec 2019