**Samar Dikshit**
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## EDUCATION

**Northeastern University**, Boston, MA — September 2019 – Present
Khoury College of Computer Sciences — Expected Graduation: December 2021
*Candidate for Master of Science in Data Science, GPA: 3.78*
Related courses: Data Management and Processing, Machine Learning, Information Retrieval, Algorithms

**Manipal Institute of Technology**, Manipal, India — July 2015 – July 2019
Department of Information and Communication Technology
*Bachelor of Technology in Computer and Communication (Data Analytics minor)*

## TECHNICAL KNOWLEDGE

| | |
|---|---|
| Programming Languages: | Python 3, R, C++ |
| Data Science Technologies: | Jupyter, Matplotlib, NetworkX, NumPy, pandas, PyTorch, scikit-learn, SciPy, Seaborn, Rasa, caret, tidyverse, MySQL, Elasticsearch, Git |
| Operating Systems: | Windows, Ubuntu |

## EXPERIENCE

**Analytics Engineering Intern** — January 2021 – Present
DTonomy Inc., Cambridge, MA

- Analysing cyber-attack data in Python based on the MITRE ATT&CK database to create patterns and improve prediction and recommendation models for the SOAR platform
- Creating bots on Slack using Rasa 2 to use services like Google Analytics and AbuseIPDB
- Developing Elastic Security integrations for the SOAR platform using Node-RED

**Research Assistant** — June 2020 – January 2021
Center for Complex Network Research, Northeastern University, Boston, MA

- Collected, processed, and explored data with over 1.5 million samples related to philanthropies, non-profits, and universities from the LittleSis API using Python
- Worked on matching the names of organisations and people across the new data and previous GuideStar data using TfidfVectorizer, CountVectorizer, and pairwise kernels, thereby expanding the previous network
- Created and analysed a new network with more than 97,000 relationships between sociopolitical entities to determine factors that influence grants and donations using NetworkX and pandas

**Teaching Assistant** — May 2020 – December 2020
Northeastern University, Boston, MA

- DS2000 Programming with Data, CS3000 Algorithms and Data

## ACADEMIC PROJECTS

**Detecting Brain Tumours using Machine Learning** — October 2020 – December 2020

- Trained a set of classifiers to detect a brain tumour when given an MRI scan in Python
- Used decision trees, adaptive boosting, and a convolutional neural network to obtain a peak sensitivity and accuracy of 98.27% and 99.17% with cross-validation, hyperparameter tuning, and feature selection

**The Application of Data Mining for Food Recommendation** — July 2020 – August 2020

- Worked on pre-processing text data related to over 4,800 recipes, followed by network analysis and association rule mining to determine commonly co-occurring ingredients using Python and R
- Created two unsupervised models to recommend food recipes using Doc2Vec and one-hot encoding in Python

**Assessing the Similarities and Differences between News Sources in the United States** — October 2019 – November 2019

- Developed a set of filters in R to obtain articles related to politics out of over 72,000 articles scraped from various news websites such as BBC, CNN, Fox, and FiveThirtyEight
- Using visualisations in R illustrating word associations, sentiment, and bigrams, proved the existence of media bias across different sources based on political leaning

More projects can be found here.