# Sarthak Kothari

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#### **EDUCATION**

## Northeastern University, Boston, MA

Sept 2017 - Present

College of Computer and Information Science

Expected Graduation - 2019

Candidate of Master of Science in Data Science.

Relevant Courses: Unsupervised Machine Learning and Data Mining, Introduction to Data Management and Processing, Algorithms, Information Retrieval.

# K. J. Somaiya College of Engineering, Mumbai, India

June 2016

Secured a Bachelor of Engineering in Computer Science with Distinction

#### **TECHNICAL KNOWLEDGE**

Development and Statistical Programming Languages: Python, R, Java, C++, .NET, Matlab.

Machine Learning Skills: Linear & Logistic regression, Clustering, PCA, etc.

Database tools & technologies: Neo4j, MongoDB, Spark, SQL Server, MySQL, Oracle, MS Access.

Data Mining, ETL and Visualization Tools: SSIS, SSRS, Telerik, Excel, PowerBI, etc.

**Python Packages & API's:** Numpy, Pandas, Scikit, SciPy, BeautifulSoup. **Tools and frameworks:** Jupyter Ipython notebook, RStudio, Eclipse, Git.

Web Technologies: HTML, PHP.

### **WORK EXPERIENCE**

### Fidelis Cybersecurity, Bethesda

July 2018 - Present

Data Science Intern

- Successfully migrated millions of records to Neo4j, a graph database, from MongoDB and Spark using Python in order to increase efficiency and data retrieval time for complex queries by 40%.
- Performing clustering analysis on the malware alert data using the intelligence obtained by analyzing relationships between nodes in the graph database to understand how different malware files are associated with each other using Python.

#### Student Housing Services, Northeastern University, Boston

Feb 2018- Jun 2018

Graduate Assistant – Database and Operations

- Generate insights for the housing services using SQL to understand the demographics of on-campus student housing and prepare for house selection for upcoming semester by taking advantage of those insights.
- Visualize descriptive reports on Telerik reflecting the current housing trends for students living in university housing.

#### Hansa Cequity, Mumbai

Aug 2016 – June 2017

Associate Analyst - Technology Servicing

- Developed a logistic regression, lead scoring, model for a client which would rate a lead's likelihood of becoming a customer of that client with an error range of 10%.
- Developed a completely automated descriptive dashboards in SSRS enabling clients to evaluate product and campaign performance and boosting sales by 15%.
- Restructured and reprogrammed SSIS data integration pipelines to efficiently ingest thousands of records from various sources into the system on daily basis.

### **ACADEMIC PROJECTS**

# Landscape of Funding in Kickstarter Projects, Northeastern University, Boston

Jan 2018 - Present

- Performed exploratory data analysis (EDA) on the Kickstarter dataset from Kaggle using R in order to understand the demographics and KPIs that prove vital in a Kickstarter campaigns success.
- Designed a statistical-model that would predict the likelihood of a Kickstarter campaign being successful.

### Exploring and Modelling on Medical Appointment No-Show Dataset, Northeastern University, Boston

Mar 2018

- Excavated insights on medical appointment data-set to identify patients having high risk of not showing up to an appointment and identified KPIs that are specific to patients who do not show up for an appointment.
- Designed and Implemented Logistic Regression model in Python using Numpy, Pandas and sklearn library of Python achieving 85% model accuracy using 5-fold cross validation scores.

# Clustering of Data, Northeastern University, Boston

Jan 2018 - Feb 2018

- Performed clustering based on unsupervised machine learning algorithm like K-Means, Gaussian Mixtures and DB-scan on multiple datasets having 10,000+ data points and 700+ features achieving accuracy of 75%.
- Executed and implemented these algorithms using Numpy and Pandas library of Python.

## Wikipedia Crawler, PageRank and Query Processing Models, Northeastern University, Boston

Sept 2017 - Dec 2017

- Implemented a wikipedia web crawler in Python to search Wikipedia pages for a keyword and its stem-words.
- Realized a PageRank algorithm in Python to rank the crawled webpage based on the number of inlinks, rank of those inlinks, total number of documents and number of sink nodes present.
- Developed indexer and query processing models to retrieve appropriate webpages based on query searched and performed query model evaluation to understand which query processing model retrieves the best result.