# Rakshak Kunchum

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## EDUCATION

**Northeastern University,** Boston, MA — January 2023 - Present
**Khoury College of Computer Sciences** — Expected Graduation: December 2024
Candidate for Master of Science in Data Science, GPA: 4.0/4.0
Related Courses: Supervised and Unsupervised Machine Learning, Data Processing and Management, Algorithms.

**BMS College of Engineering,** Bangalore, India — September 2016 - August 2020
Bachelor of Engineering in Information Science Engineering, CGPA: 8.8/10
Related Courses: Statistics, Machine Learning, Database Management Systems, Data Mining, Data Science Foundations.

## TECHNICAL SKILLS

**Programming Languages:** Python, SQL, R, Java.
**Toolkits/Frameworks:** Tensorflow, Keras, Scikit-learn, NLTK, Selenium, Airflow, Kafka, AWS Athena, S3.
**Data Manipulation/Visualization tools:** Pandas, NumPy, Dask, OpenCV, Matplotlib, Seaborn, Plotly.
**Data Engineering:** Shell Scripting, Web Scraping, Data Wrangling, Workflow Automation.

## PROFESSIONAL EXPERIENCE

**Dataweave (Infoweave Analytics Pvt Ltd),** Bangalore, India — July 2020 - October 2022
Data Engineer

- Automated multiple data engineering projects, applying project-specific automation techniques to streamline processes, enhance efficiency and reduce manual intervention, resulting in improved team productivity and project outcomes.
- Pioneered the implementation of the Dask framework to optimize batch processing of image data in the company's clustering algorithm, achieving a remarkable 50% reduction in processing times and demonstrating innovative problem-solving skills and effective teamwork.
- Spearheaded the setup of end-to-end data pipelines using Apache Airflow, enabling seamless data workflows.
- Piloted the comprehensive workflow for counterfeit detection showcasing leadership and collaboration skills. Achieving over 95% accuracy in identifying and taking down counterfeit products.

**Dataweave (Infoweave Analytics Pvt Ltd),** Bangalore, India — January 2020 - June 2020
Data Engineering Intern

- Built diverse crawler plugins and designed efficient solutions for scheduling data crawls, enabling effective data scraping from multiple e-commerce websites and ensuring optimal data extraction and flow.
- Led the delivery of structured data by employing data-wrangling methods to clients under data-as-a-service project.

## ACADEMIC PROJECTS

US Air Pollution Time Series Analysis — February 2023 - April 2023

- Applied time-series analysis techniques to the US pollution dataset, by focusing on significant pollutants.
- Leveraged advanced time-series forecasting approaches (SARIMAX, LSTM) to predict future air pollution trends in California, providing valuable data-driven insights for environmental monitoring and strategic decision-making.

Trending News Prediction using NLTK and Web Scraping — October 2021 - December 2021

- Developed a web scraper to gather news articles from a specific website and processed the data using NLP techniques.
- Employed various classification machine learning models (logistic regression, k-nearest neighbors, decision tree, random forest, xgboost) to determine the optimal model for predicting and analyzing news trends.

Deep Learning Approaches to Detect Pneumonia — February 2020 - June 2020

- Ran a comparative analysis of three machine learning models (CNN, U-Net, Mask-RCNN) for pneumonia detection.
- Achieved accurate identification and precise localization of pneumonia infection regions in Chest Radiographs by leveraging the superior performance of the Mask-RCNN model.

## EXTRACURRICULARS

Data Science Hub, Northeastern Graduate Student Government, Badminton, Hiking