

AKSHAY KULKARNI

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EDUCATION

NORTHEASTERN UNIVERSITY

Khoury College of Computer and Information Sciences

Candidate for Master of Science [M.S.] in Data Science

Related Courses : Algorithms, Data Management and Processing, Information Retrieval, DBMS
Large Scale Parallel Data Processing (MapReduce & Spark) and Supervised Machine Learning

Boston, MA.

Sep 2018 - Present

GPA: 3.7335

BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI – DUBAI CAMPUS

B.E. [Hons] in Electronics and Communications Engineering

Related Courses : Digital Image Processing, Communication Systems

Dubai, U.A.E.

Aug 2012 - Jul 2016

SKILLS

Languages : Python, R, SQL,
Java ,Octave ,MATLAB ,Scala ,
JavaScript, HTML ,CSS/Sass

Tools & IDE'S : IntelliJ IDEA and
PyCharm, RStudio , Jupyter, Git ,
Tableau , MySQL Workbench, Docker

Libraries & Frameworks: Scikit-Learn,
NumPy , Pandas , TensorFlow, Keras,
SQLA , Django , Flask , DASH , kernlab,
Lucene, Apache Spark, Apache Hadoop

WORK EXPERIENCE

NORTHEASTERN UNIVERSITY - Graduate Teaching Assistantship

→ **CS-3200 [DBMS]**

→ **DS-4100 [Data Collection, Integration and Analysis]**

- Designing coursework and assignments, evaluating student projects.
- Guiding and teaching students in-class or during office hours to help them master assignments and to reinforce learning concepts such as tidying ,storing and analysing data, employing modelling techniques - regression, clustering and other machine learning techniques in R.

Boston, MA.

Sep 2019 – Present

Jan 2019 – May 2019

PREDIKLY - Junior Analyst

- Worked on generating statistics, visualizations and dashboards for projects like Cloud based collaboration platform for CA/CPA/CS clients to manage their Practice online with cutting edge BI Tools like Tableau and assisted in building predictive analytics solutions.

Pune, India.

Aug 2017 - May 2018

ZIO TECHNOLOGIES L.L.C - Sales and Statistics Intern

- Acquisitioned, managed and analysed product statistics/data for projects and tender submissions and assisted on Systems and AV integration for large scale projects in Dubai for the Government of Dubai and other major sites

Dubai, U.A.E.

Aug 2015 – Jan 2016

ACADEMIC PROJECTS

Decision Support Framework/Multi-Objective Optimization & Visualization Tool

Jun 2019 – Aug 2019

- Deployed a re-usable database-agnostic decision support tool with a React front-end and the core components developed purely in Python to enable a user to link any database to the tool to extract and display an interactive manipulable decision matrix of values & calculate the Non-Dominated set of solutions to aid the user with multi-objective trade-off analysis and to plot a spatial interactive Pareto Frontier/Curve for the selected features or objectives

Building a complete Information Retrieval Model.

Jan 2019 – Apr 2019

- Implemented an information retrieval model in Python and using Lucene, using several ranking algorithms such as BM25,QLM & Vector Space to rank parsed and cleaned documents, while optimizing the search engine by employing stopping, stemming as well as pseudo-relevance feedback algorithms, query expansion via Word2Vec-trained embeddings & generating summarization with Luhn's algorithm

Analytical Occupation Classification on O*NET Database using Gaussian Process Classifier

Mar 2019 – Apr 2019

- Performed EDA and feature analysis and processing on the O*NET database containing information on hundreds of standardized and occupation-specific descriptors. Employed Gaussian Process Classifier with other models such as QDA to compare performance & classify a given occupation from the O*NET database being *Analytical* in nature or not.

Implementing a Web Crawler and Parsing and Tokenizing, Ranking Scraped pages.

Jan 2019 – Feb 2019

- Built a comprehensive web-crawler Python to retrieve links from a specified wiki seed page while also scraping the text from crawled pages for cleaning, tokenization & analysis to generate corpus text statistics. as well as implemented Google's PageRank algorithm from scratch to rank the crawled pages graph. as part of a larger aim to build a complete search/retrieval engine

Analysis of Human Development in India using IHDS-II dataset

Oct 2018 – Dec 2018

- Utilised R and its tools to collect clean and explore factors affecting human development in rural India in two different time frames of 2005-06 and 2011-12. Using generalised logistic regression models and random forest models to predict the trend of various factors on a range of indicators including factors affecting women's employment and agricultural / business yield