

SWATHI RAJANNA

www.swathirajanna.com | rswat@seas.upenn.edu

(215) 552-1551

Education

University of Pennsylvania, School of Engineering & Applied Sciences, Philadelphia

May 2018

Candidate for Master of Science in Computer and Information Science graduating May 2018.

Courses : Analysis of Algorithm, Computational Linguistics, Artificial Intelligence, Linear Algebra and its applications, Internet & web systems, Databases & information Systems.

National Institute of Technology Karnataka, India

May 2016

Bachelor of Technology in Information Technology

Courses : Data warehouse and Data Mining, Machine Learning, Distributed Systems, Operating Systems.

Experience

SAP Ariba, Palo Alto, CA | Summer Intern

June - August 2017

Matching attribute phrases using NLP to attribute terms on the fixed standard taxonomy.

Web server using Flask Python to host API which accepts attributes and description.

Fidelity Investments, India | Summer Intern

May - July 2015

Build Business Glossary and link technical terms across databases.

Determine better paths for dataflow and effort required using Informatica Metadata Manager.

Skills

Languages - Java, Python, C++, C, JavaScript, Matlab, R, C#, PL/SQL, MySQL.

Web Based - Django, Node.js, PHP, HTML, CSS, AngularJS, EJS, XML, MongoDB.

Platforms - Linux, Git, AWS Elastic MapReduce, EC2, S3, SAP Hana, Informatica Powercenter, Microsoft Visual studio, OpenGL.

Academic Projects

Search Engine

April 2017

A Cloud based Search Engine with loosely coupled components including PageRank and Indexer built on AWS EMR and a Search Engine build using Java that displays ranked results based on 1 million previously crawled pages.

Web Crawler

March 2017

An implementation of a topic specific Web crawler both as a Java application as well as using Stormlite for distributed crawling build atop an Implementation of Thread Based HTTP application Server from scratch in Java. Implementation of Thread Based HTTP application Server from scratch in Java. XPath evaluation engine used to classify crawled documents into channels.

Predictive Notepad

July - December 2013

Implemented an optimized spelling correction algorithm after exploring edit distance and brute force approaches.

Dictionary of about 41,000 words to predict words based on permuting the entered letters and frequency.

Dictionary build using Hash Sets and ArrayLists in Java.

User Personalized Search Framework over multi dimensional social media data

July 2015 - April 2016

Personalized and ranked suggestions using Machine Learning and Non-Machine Learning techniques (Aspect and Rule based Sentiment Analysis) coded in Python with a website build using the Django framework. Data (user's reviews, comments) extracted from Zomato, Foursquare and Youtube.

Publication : A Personalized Recommender System using Machine Learning based Sentiment Analysis over Social Data (IEEE International Students' Conference on Electrical, Electronics and Computer Sciences 2016.)

Using GARCH Model to Forecast Volatility of the Stock Index

January - May 2016

Time series analysis using ARCH, ARMA and GARCH to model the return series along with Ljung box testing to predict the volatility in data over time using Akaike Information criteria metric to determine if it is a good fit in R language.

RotMeNot - Mobile App to track your groceries

September 2016

App built using Ionic provides the user a real time inventory status of all food items from Scanned Grocery receipts.

Backend server built with Python Django with Google Vision API for OCR.

Clustering WSDL Documents to Bootstrap the Discovery of Web Services

January - May 2015

Python Implementation of ML method to cluster structured documents.

WSDL documents clustered based on features to group their respective Web services into functionality based clusters.