

Souradeep Sinha

Education

- 2014–2016 **MS in Computer Science** *Syracuse University*
GPA (out of 4) - 3.52
Relevant Coursework: Analytical Data Mining, Fundamentals of Data Mining, Design and Analysis of Algorithms, Cryptography
- 2010–2014 **BTech in Information Technology** *West Bengal University of Technology*
GPA (out of 10) - 8.44
Relevant Coursework: Database Management Systems, Computer Networks, E-Commerce, Information and Coding Theory, Operations Research, Engineering Mathematics

Professional Experience

Related Experience

- 2015–Present **Graduate Researcher - Social Media Mining** *Data Lab, Syracuse University*
Advisor: Dr. Reza Zafarani, Area of Research: Data Science
- o Implemented Bloom filter in Python to block spam accounts with 0.12% false positives
 - o Tested intrusion detection techniques using Weka's Naive Bayes, J48 Decision Tree and kNN classifiers as well as Liblinear's SVM classifier
 - o Investigated psychology and computer science research on deception and provided feature recommendation for analysing deception in social data
 - o Collected, cleaned, preprocessed data using Python, Selenium and Beautiful Soup
- 2013–2013 **Data Analysis Intern** *Quikr, India*
- o Investigated online advertisement data to identify consumer trends and buying patterns
 - o Developed statistical and predictive models that helped increase customer engagement time on premium ads by 14%
 - o Provided graphical recommendations to increase user bounce times
- 2013–2014 **Database Lab Administrator** *Institute of Engineering and Management, India*
- o Developed MySQL queries to effectively test core concepts of relational databases
 - o Designed course project with appropriate Visio schema diagrams and sample data to facilitate stored procedures, functions, triggers and error handling
 - o Collaborated and formulated a lesson plan aimed at increased student participation in labs

Additional Experience

- 2014–Present **Late Night Manager** *Student Centers and Programming Services, Syracuse*
- 2015–2015 **Summer Staff** *Reservations and Building Operations, Syracuse*
- 2015–Present **Event Staff** *Events and Technical Services, Syracuse*
- 2010–2014 **Business Development Associate** *In Good Taste, India*

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Projects

α -Tweet: Retweet prediction with Naive Bayes

Syracuse University

- o Designed multithreaded scraper bots to collect tweet history for users and their followers
- o Used NLTK to perform word tokenization and TF-IDF filtering to clean data
- o Modified Naive Bayes algorithm and Pearson's coefficient and identified negative correlation between tweet words and retweet possibility

Analysis of elasticity on AWS Cloud

Syracuse University

- o Used Botocore to combine EC2, S3 and DynamoDB resources to store vectorized clusters
- o Designed shell scripts to enable command line autologins to multiple EC2 instances
- o Automated the procedure of data upload, download and performance monitoring with simple Python Boto3 API calls

Comparative study on dimensionality reduction techniques

Syracuse University

- o Compared Random Projection and PCA to reduce a synthetic dataset of 60 features
- o Employed Agglomerative Hierarchical Analysis with Conditional Entropy and Normalized Mutual Information for cluster validation

ID3 Decision Tree with Python

Syracuse University

- o Implemented a model capable of training and classifying nodes from any input dataset with varying parameters and splitting threshold values

Skills

{Languages}	Python, Java, R	{DB/rDBMS}	MySQL, MongoDB
{Big Data}	Hadoop, MapReduce, HiveQL	{AWS Stack}	EC2, S3, DynamoDB
{OS}	Linux, Unix	{Packages}	Pandas, Scipy, Urllib
{APIs}	NLTK, Tweepy, Botocore	{Other}	Shell Scripting, Multithreading

Leadership Roles

2015–Present	Senator	<i>Graduate Student Organization</i>	Syracuse University
2015–Present	Executive Board Member	<i>Engineering and Comp Science GSO</i>	Syracuse University
2014–Present	Fellow	<i>Leadership and Cultural Program</i>	Syracuse University
2014–Present	Graduate Ambassador	<i>College of Engineering and Comp Science</i>	Syracuse University

Certifications

- o The Data Scientist's Toolbox - Johns Hopkins University
- o Introduction to Hadoop and Mapreduce - Cloudera
- o Data Wrangling with MongoDB - MongoDB

Interests

- o Running(10K, 5K), Hiking, Soccer, Tennis
- o Geometric Drawing - Fractals, Spirals, Pentagrams, Zentangles, 1-5 Point Perspectives
- o Community Service - Child Education in India, Women Empowerment through Craft, Animal Welfare

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