

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*

128 Cambridge Street – Syracuse, NY 13210

☎ +1 (315) 412 8844 • ✉ ssinha04@syr.edu • [in /in/souradeepsinha](https://www.linkedin.com/in/souradeepsinha)
🌐 [ssinhaonline](http://ssinhaonline.com)

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	Graduate Student Organization	Syracuse University
2015–Present	Executive Board Member	Engineering and Comp Science GSO	Syracuse University
2014–Present	Fellow	Leadership and Cultural Program	Syracuse University
2014–Present	Graduate Ambassador	College of Engineering and Comp Science	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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🌐 [ssinhaonline](#)