## **NAVITA JAIN**

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#### $\mathbf{Skills}$

Languages | Python, Java, JavaScript, SQL, HTML

Machine Learning, Analytics | Clustering, Classification, Regressions, Feature Selection (Random Forests, k-Means, Support Vector Machines(SVM), Decision Trees), Market Basket Analysis, Text Mining, Bayesian Predictive Analysis Libraries, Tools and Frameworks | Pandas, NumPy, SciPy, Matplotlib, scikit-learn, Jupyter Notebook, Git, Amazon Web Service(AWS), Tableau, Lucene, TkInter, MS Excel

# Experience

#### Data Analyst, Girl Scouts of Northeastern New York

Feb 2017- Oct 2018

- Performed exploratory data analysis(EDA) and statistical analysis on internal and external data to generate insights.
- Applied Random forest feature importance to identify the important feature/s for member retention.
- Used machine learning techniques to perform trend and pattern analysis on members, programs, donors data, etc.
- Demonstrated findings to directors and executive staff through presentations to facilitate informed strategic business decisions.
- Involved in large scale data migration from existing database to a new database.
- Developed a Python Application using TkInter as a support tool for data migration.
- Queried database using SQL and cleaned it using Python for modeling.

#### Graduate Research Assistant, Data Mining lab, University at Albany

Apr 2015 - Jan 2017

- Developed efficient statistical and data mining techniques for community detection in social networks.
- Modeled topic trends in time stamp data using probabilistic and generative techniques.
- Implemented two state burst detection model on time series data for graph network using dynamic programming.

## System Engineer, Infosys Limited

Mar 2010 - Sep 2012

Oracle DBA, Sep 2011 - Sep 2012

• Responsible for database administrative activities for a large and complex Oracle11g and Oracle9i database system.

## Salesforce Developer, Mar 2010 - Aug 2011

- Implemented, administered and maintained client's Salesforce business application.
- Created Custom Objects, Custom fields, Custom Tabs, Reports and other components as per clients requirements.

### **Projects**

### Sychnronized Communities in large scale graph networks, Master's Thesis

- Synchornized behavior analysis using spike and ISI-distance on large social networks.
- Performed statistical significance and hypothesis testing using P-value to determine coordinated behavior between nodes.

#### Influence detection using Politeness and Likeability, Natural Language Processing and Machine Learning

- Developed text analysis model for sentiment and politeness detection.
- Implemented Naive Bayes and Support Vector Machine(SVM) classifier in Python.
- Prepared annotated Twitter dataset with politeness and sentiment labels.

#### Online Voting Application: BallotBox, Web Development and Software Engineering

- Build the voting module for a customizable online voting application using MVC model and performed full integration.
- Designed and deployed MySQL relational database and the web application on AWS..

### Document Retrieval for Explicit Temporal Queries, Information Retrieval

- Proposed a variant of Term Frequency -Inverse Document Frequency (TF-IDF) for relevant documents retreival in explicit time sensitive search.
- Performed detailed evaluation of proposed solution and existing Java based information retrieval software Lucene based on precision and recall.

#### Discovering Social Circles, Data Mining

- Proposed a solution for categorization of nodes into social circles using k-way paritioning and Jaccard Similarity.
- Evaluated the performance of proposed solution using balanced error rate and F1 score accuracy metrics.

## Education