Rajat Handa

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(Open to Relocation)

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Education

Master's(M.S.) Data Analytics Engineering | George Mason University | (GPA: - 3.9)   *August 2016- May 2018*

- **Courses:** Machine Learning, Natural Language Processing, Statistics, Social Media Analytics

Bachelor's(B.S.) Computer Science | University of Pune| (GPA: -3.55)   *August 2011- May 2015*

- **Courses:** Data Structure and Algorithms, Database Management Systems, Advanced Database, AI

Technical Skills

- **Languages:** Python, R, SQL, Shell Script, D3.js
- **Python Data Stack:** Pytorch, Keras, Fast.ai, Numpy, Scikit, Pandas, Tweepy, Dash, NLTK, PySpark
- **Big Data:** AWS, Crestle, Apache Spark, HDFS
- **Visualization:** Tableau, Fusion Tables, Kibana, Gephi

Work Experience

- **Data Science Intern**   *January 2018 – Present*
  Principal Finance Group
  - Implementing Sector Neutral Multivariate Forecasting model to rank stocks based on their investment potential.
  - Identified 18 key metrics using a hybrid framework based on Evolutionary and feature selection algorithms, mapped the metrics to five different sector/region and negotiated with data owners.
  - Created Facets dashboards for senior leaders to brief about the data quality across the firm.

- **Machine Learning Researcher**   *September 2016 – December 2017*
  Engineering Education & Cyber-Learning Lab, George Mason University
  - Developed a machine learning framework for gender inference (individual (female, male), organization) on Twitter using tweet text(LIWC) and image (CNNs & ResNet) with machine learning algorithms (SVM, Random Forest)
  - Classified topics discussed across Twitter using LDA and used n-grams
  - Crafted an interactive web application for comparison of United Nation's Anti Gender Based Violence Campaigns across different demographics (#HeForShe, #ItsonUs, #StateofWomen) using D3.js.
  - Examined engagement among participating individuals and organizations using Graph Theory.
  - Predicted tweet sentiment for measuring the impact of different campaigns.

Academic Projects

- **Jigsaw Toxic Comment Classification:**
  - Mapped words to vectors using Word2vec, Glove and FastText.
  - Classified comments using CNN, LSTM, GRU and hybrid of all three.
- **Daily News for Stock Market Prediction:**
  - Used count vectorization and TF-IDF for feature space development.
  - Implemented classifier using Naïve Bayes, SVM and Random Forest.
- **Forecasting Australia's Beer Production:**
  - Transformed and analyzed historical data to reduce complexity of modelling.
  - Forecasted the beer production using ARIMA, Holt Winters and Neural Network.

Publications

2. Habib Karbasian, **Rajat Handa**, Hemant Purohit, Aqdas Malik, Aditya Johri: "Real-Time Inference of User Types to Assist With More Inclusive Social Media Activism Campaigns", **AAAI/ACM Conference On AI, Ethics, And Society, USA,2018**

1. Aditya Johri, Habib Karbasian, Aqdas Malik, **Rajat Handa**, Hemant Purohit: "How Diverse Users and Activities Trigger Connective Action Via Social Media: Lessons from The Twitter Hashtag Campaign #Ilooklikeanengineer", **HICSS Conference, USA,2018**

Fellowships & Certifications

- **Deep Learning Fellow:** *Fast.ai, San Francisco, USA*
- **Database Fundamentals:** Microsoft