## **MILI SHAH**

413-800-9382

E-mail: milishah224@gmail.com LinkedIn: linkedin.com/in/milishah224 GitHub: github.com/itsmilishah

#### EDUCATION UNIVERSITY OF MASSACHUSETTS AMHERST

Master's in Computer Science, September 2017 - May 2019

#### **NIRMA UNIVERSITY**

Bachelor of Technology, Computer Engineering, August 2013 – May 2017

#### **EXPERIENCE**

#### **VIASAT** | Software Engineering Intern

June 2018 - August 2018

- Currently working on optimization for multicast from satellites to in-flight WiFi
- Developing machine learning models to predict when multiple airplanes will fall under the coverage area of the same satellite

#### MORGAN STANLEY | Technology Analyst Intern

May 2016 – July 2016

- Worked to automate level-1 support for java developers of Morgan Stanley
- Constructed a system in Python to cluster queries to analyse topics and to match new query e-mails with mined previous discussions and wiki pages

#### INFORMATION EXTRACTION AND SYNTHESIS LAB | Graduate Student Researcher

- Working with Prof. Andrew McCallum for multi-sentence relation extraction from biomedical text
- Previously worked on extending rowless universal schema LSTM model for automatic knowledge base completion using complex embeddings to capture asymmetry in relations
- Achieved a mean reciprocal rank of 33 with implementation in Python using Tensorflow

# **GOOGLE: LARGE-SCALE COMMONSENSE AS LEXICAL ENTAILMENT** | Graduate Student Researcher January 2018 – April 2018

- Worked with Mr. Chris Welty and Prof. Lora Aroyo to perform crowdsourcing experiments to construct a common-sense hypernym taxonomy
- Constructed an Elasticsearch database of 205 million sentences and used in the experiments

#### **PROJECTS**

#### MACHINE READING COMPREHENSION QUESTION ANSWERING

February 2018 - May 2018

- Built models for Question Answering on SQuAD based on BiDAF, Transformers and combination of neural and linguistic information in PyTorch, and using spaCy
- Achieved an F1 score of 72.14 by adding a dependency parse layer, implemented with transformer, to BiDAF an improvement over AllenAI's BiDAF model's score of 71.49

### **CHARACTER IDENTIFICATION ON MULTI-PARTY DIALOGUES**

September 2017 - December 2017

- SemEval 2017 task to build an efficient character identification system using supervised learning
- Achieved a mean precision of 71% in coreference resolution with agglomerative Convolutional Neural Nets implemented in Python using Tensorflow

#### STUDYING IMPACT OF INTERNATIONAL STOCK MARKETS ON INDIAN STOCK MARKETS

August 2016 - November 2016

- Built SVR predictive models for stock markets in Python achieving a mean absolute error of 1.1%
- Performed a causality analysis study between different stock markets using these models

# SHUTTERING PLATES MANAGEMENT SYSTEM

October 2014 - Dec 2014

- A desktop application of stock management developed for a business
- Implementation in Java using Swing with MySQL database

#### **COURSES**

Machine Learning, Neural Networks, Algorithms for Data Science, Natural Language Processing, Big Data Analysis, Advanced Data Structures, Database Management Systems, Operating Systems

# TECHNICAL SKILLS

Languages: Python, Java, R, C, C++, JavaScript

Module Familiarity: Tensorflow, PyTorch, Keras, Scikit-learn, Numpy, Pandas, Spacy, CoreNLP, NLTK, Gensim,

FastText, RDFLib, Elasticsearch, AllenNLP **Other:** AWS, Hadoop, SQL, MongoDB