MILI SHAH

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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
May 2018 – August 2018
- Developed a PyTorch based pipeline in AWS that provides real-time predictions about when multiple airplanes will fall under the coverage area of the same satellite, for data multicasting optimization
- Resulted in projected savings of 500 GB in data transfer per month for in-flight WiFi services

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 in natural language inference
- 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 for use in the experiments as context

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

Natural Language Processing, Machine Learning, Neural Networks, Algorithms for Data Science, Reinforcement Learning, Computer Vision, 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