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
- Developed a system to automate level-1 support for Java developers of Morgan Stanley
- Implementation of the system in Python that clusters queries to analyse topics and mines old discussions and wiki pages to answer new e-mails

INFORMATION EXTRACTION AND SYNTHESIS LAB | Graduate Student Researcher
- Working with Prof. Andrew McCallum in linguistically informed neural nets for natural language inference
- In a previous project, achieved a mean reciprocal rank of 33 in relation extraction from unstructured text, with an implementation in Python and Tensorflow, by using complex embeddings in the rowless universal schema LSTM model for knowledge bases

GOOGLE: LARGE-SCALE COMMONSENSE AS LEXICAL ENTAILMENT | Graduate Student Researcher
January 2018 – April 2018
- Collaborated with Mr. Chris Welty and Prof. Lora Aroyo to perform crowdsourcing experiments using CrowdFlower aimed towards constructing a common-sense hypernym taxonomy
- Constructed an Elasticsearch database of 205 million sentences to use in the experiments as questions

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
- Achieved a mean absolute error of 1.1% for stock market prediction by developing SVR prediction system in Python
- Performed a causality analysis study between different stock markets using these models

SCAFFOLDING BUSINESS MANAGEMENT SYSTEM
October 2014 – Dec 2014
- Developed a platform for stock management for a client company for their business
- Implemented the desktop application in Java 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
Modules/Frameworks: Tensorflow, PyTorch, Keras, Scikit-learn, Numpy, Pandas, Spacy, CoreNLP, NLTK, Gensim, FastText, RDFLib, Elasticsearch, AllenNLP
Other: AWS, Hadoop, SQL, MongoDB