Ishan Shah

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EDUCATION

Stevens Institute of Technology, Charles V. Schaefer, Jr. School of Engineering & Science Hoboken, NJ
Master of Science in Computer Science, GPA:3.78/4.0 **Expected: May 2018**
Course Work: Enterprise Software Architecture and Design, Database Management Systems, Concurrent Programming, Advanced Algorithms, Database Management Systems, Big Data Analytics, Social Network and Web Analytics

University of Mumbai, D.J. Sanghvi College of Engineering Mumbai,India
Bachelor of Engineering in Computer Engineering, GPA: 7.75/10.0 **May 2016**
Course Work: Parallel and Distributed Systems, Operating Systems, Cloud Computing Lab, Data Warehouse and Mining

PROFESSIONAL EXPERIENCE

Ask My Uncle Sams Inc.
Software Engineer August 2017-Present

- Generated **word2vec word embeddings** for tax publications and IRS tax code, using tensorflow and python
- Calculated **sentence similarity scores** using word2vec embeddings and similarity measures from scikit-learn to handle semantic and syntactic differences between the user input string and databse key string
- Assisted in building chatbot application using Django and deployed it using **NGINX server**

Software Engineering Intern June 2017-August 2017

- Implemented a **Deep Learning LSTM model** in python using **TensorFlow** to build a chatbot dialog platform
- Used different natural language processing similarity score functions (including word2vec, ngram, tfidf, topic modelling) to match an input question with our target answers. Also, developed AMIs and maintained servers

PROJECTS

Simple peer-to-peer (P2P) RESTful Distributed Hash Table **October 2017- December 2017**

- Implemented DHT, a peer-to-peer structured overlay network using **RESTful API** to facilitate inter node communication and embedded **Grizzly Web Server** for the nodes to run as standalone Java programs
- Provided node operations like **joining nodes** and **creating key-value pair bindings on each node.** Binding operations of **adding, retrieving, deleting bindings** at both local & remote nodes(with respect to the EC2 instance)

Remote Method Invocation Implementation of File Transfer Protocol (FTP) Server **September 2017- October 2017**

- Implemented **file upload and download** in active and passive mode using TCP sockets, Java EE and Maven
- Provided various functionalities like **changing directory** on the server, at multiple levels, up and down in the file system and **listing contents** of the remote directory the remote file system is navigated
- Created EC2 instances of client and server, and configured appropriate **security groups for active-passsive modes**

Search Engine **March 2017- April 2017**

- Designed and implemented an efficient search engine using an **inverted index data structure**, in Java in **O(m)**
- Data structure consisted of an occurrence list of terms, which is an **array and a compressed trie** for the set of index terms, where each external node stores the index of the occurrence list of the associated term

Clinic Information System Web Service Interface using REST **September 2016- October 2016**

- Developed a RESTful web application in Java EE for a clinical information system consisting of various **entities** like patients, treatments and treatment providers. Deployed it on Amazon Web Services EC2 instance
- Defined the web service interface for clients that want to access the application over the web, that includes a **hypermedia network** linking resources to other resources
- Provided **interface features** for patients like adding patients, obtaining patient representation from a resource URI or patient id, obtaining treatment information; and treatment provider features to do the same operations

Socially-Connected Cities: Detecting culturally significant locations **October 2016- December 2016**

- Developed a **Web Scraper** in python to perform data extraction from Instagram for top posts at various locations
- Applied statistical models(Girvan-Newman & Clauset-Newman-Moore) for **community detection** in R to get the most important cities based on the hashtag network from the hashtags used on top posts from each city
- Developed and integrated the program into **R-shiny application** which provides a dashboard to organise city dropdown, vizualisation algorithm, degree centrality, community detection, geographic views & degree distribution

SKILLS

Programming Languages: Java, Erlang, Scala, Python, XML, XSL
Database Systems: PostgreSQL, MySQL, Cassandra
Technologies: Amazon Web Services, Service Oriented Architecture, REST
Certifications: Microsoft Certified Technology Associate (Web Technology)
Additional Courses: Scala and Spark for Big Data and Machine Learning, Hadoop MapReduce for Big Data Problems