## **HARSH SHAH**



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#### **EDUCATION**

Master of Science, Computer Science, University at Albany, SUNY

May 2019 (GPA: 3.94/4)

• Bachelor of Engineering, Computer Science, Gujarat Technological University, India

June 2015 (CGPA: 7.48/10)

#### RELEVANT EXPERIENCE

# Graduate Research Assistant, University at Albany, State University of New York

January 2019 – May 2019

# Environment: - python, Flask, natural language toolkit, word-cloud

- Implemented solutions for curriculum mapping and tracking student's progress in computer-supported collaborative learning (CSCL) environment
- Created RESTful web services using Flask micro-framework to leverage concept mapping for data visualization
- Developed and integrated word-cloud feature between student notes and key concepts in analytical software

## Project Research Assistant, The Research Foundation for SUNY, Albany, NY

June-2018 - December 2018

# Environment: - python, Gensim, Word2vec, Natural Language Toolkit (nltk), SQL, scrapy

- Responsible for collecting, processing and storing large scale textual data with NLP concepts
- Managed to crawl articles from different websites using selenium webdriver and scrapy tools
- Involved in building model that generates messages based on target term and source domain

## Software Engineer, Cybage Software Pvt. Ltd., Pune, India

April 2016 - June 2017

#### Environment: - Java EE, Spring, Hibernate, Spring REST, Junit, JIRA, PostgreSQL

- Designed and developed RESTful API for e-commerce platform for item and order management modules
- Configured the POJOs with backend tables in Hibernate to achieve the associations
- Created web services in Spring REST environment backed by JUnit test cases using Test Driven Development
- Implemented using Agile methodology, version control system Git and JIRA tool for problem tracking

### **SKILLS**

- Languages: JAVA 8, Java SE, Java EE, PL/SQL, NoSQL, HTML5, CSS3, python
- Frameworks and tools: Spring boot, Hibernate, MyBatis, Angular, Bootstrap, NodeJS, ExpressJS, MongoDB, Flask
- **Design Patterns:** Singleton, Factory, Adapter, Observer
- Others: Git, Agile Methodology, Amazon Web Services (AWS), REST API, Natural Language Toolkit(nltk)

# **ACADEMIC PROJECTS**

# picShare, University at Albany, State University of New York

January 2018 – May 2018 | Git Link

## Environment: - Java EE, Spring Boot, Spring data JPA, Facebook Graph API, MVC, MySQL, AWS, RDS, EC2

- Developed a social networking platform to share image with annotation as post an audio or text
- Integrated Facebook Graph API, provided Login with Facebook functionality and fetched friends from Facebook account
- Configured Spring data JPA with MySQL on RDS instance to persist the object state at different stages
- Utilized Amazon Web Service by storing data on RDS instance and hosted application on EC2 instance

#### Go-Ami-Go, University at Albany, State University of New York

January 2018 – May 2018 | Git Link

# Environment: - Angular, NodeJS, ExpressJS, MongoDB, HTTP Client API, Bootstrap, HTML5, CSS3

- Built smart trip planner with budget management, restaurant suggestions and gallery management
- Implemented HTTP Client API in Angular to communicate with backend services over HTTP protocol
- Developed user-functionalities on front-end side for the manage trips module and provided back-end support
- Established communication between MongoDB and ExpressJS framework to service requests

#### Suicide Sentiment Analysis, University at Albany, State University of New York

January 2018 – May 2018

# Environment: - Twitter REST API, TF-IDF, Machine Learning algorithms, Support Vector Machine, Logistic Regression

- Collected 5000 tweets related to suicide in a geographic region using Twitter REST API
- Calculated and analysed the precision and recall measures on collected tweets
- Presented box plot and histogram for followers and status of collected tweets' users
- Built classification model (70 +/- 8) using linear SVM, nonlinear SVM and logistic Regression techniques

#### Document Classifier, University at Albany, State University of New York

August 2018 – December 2018 | Git Link

#### Environment: - TF-IDF, python, Support Vector Machine, K Nearest Neighbour, Naïve Bayes, Logistic Regression

- Developed a classification model to automate labelling of documents based on content using machine learning approach
- Used BBC news data-set containing more than 2000 articles of 5 various categories for training
- Trained KNN, SVM, Multinomial Naive Bayes and Logistic Regression Model and tested on FOX news dataset
- Calculated accuracy by K-fold cross validation and evaluated each model using confusion matrix

#### Food Detection, University at Albany, State University of New York

August 2018 – December 2018

## Environment: - YOLO (You Only Look Once), COCO dataset, Annotation tool

- Explored workflow of YOLO (You Only Look Once), YOLO9000 and YOLO v3
- Annotated images from COCO dataset and converted boundary box co-ordinates using Annotation tool
- Examined predictions using both self-trained and pre-trained models of YOLO

## EzzyGo, Centre for Development of Advanced Computing

December 2015 – January 2016 | Git Link

# Environment: - Java EE, Spring, Hibernate, MySQL, MVC architecture, JSP, JSTL, HTML

- Established a SQL-Java EE based online environment for the bus ticket reservation system using Spring MVC
- Involved in creating the Hibernate POJO objects and mapped using Hibernate annotations for data persistence
- Configured JavaMail API to send ticket as an email upon successful reservation

# Home Automation System, Nar Narayan Shastri Institute of Technology

July 2014 – May 2015

# Environment: - Beaglebone black, relay, python, debian

- Developed a system to operate devices using web application through WLAN network
- Utilized beagle bone black development platform and relay for hardware support
- Established communication over WLAN network through python scripts

#### **CERTIFICATION AND AWARDS**

Coursera deeplearning.ai Certification - Neural Networks and Deep Learning

April 2019 | Certificate

Awarded scholarship by SUNY Research Foundation for Research Assistant position, Albany

Fall 2018

Post Graduate Diploma, Advanced Computing, C-DAC Advanced Computing Training School, Pune

January 2016

3rd position (out of 100 teams), National round of I-Touch Robotic Arm at Indo-US Robo League, Mumbai

March 2014