# VISHESH SHARMA

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## **EDUCATION**

Santa Clara University

Master's in Computer Science and Engineering Thadomal Shahani Engineering College

B.E. in Information Technology

Fall '18 – Summer '20 (Expected)

July '14 - July '18

#### WORK EXPERIENCE

## **CDRI** (Central Drug Research Institute)

Data Scientist, Dec 2017 - May 2018

- Performed a collection of the data on the art galleries via Web Scraping with the help of Python.
- Performed visualization techniques on the data by plotting the data in the form of scatter and bar plots with the help of 'matplotlib', based on the parameters such as Location, Population Density, etc.
- Analyzed and developed a report on the effects of different parameters on the popularity and success of the art galleries.

## TECHNICAL SKILLS

- Tools & Languages: Java, Python, Cpp, Ruby, Android, SQL, Matlab, Visual Studio, Git, GitHub.
- Web Technologies: AngularJS, Node.js, Express.js, Mongoose, jQuery, HTML, JavaScript, CSS, PHP, RESTful Web Services
- Cloud Technologies: AWS, GCP (Google Cloud), Docker, serverless computing, LAMP server.
- Databases & Operating Systems: Firebase, MongoDB, MySQL, Oracle Database, Windows, Linux (Ubuntu).

#### **PROJECTS**

## **Android Application Development:**

Course/ Group Project (Tools used: Android Studio, Java, Firebase)

- Developed a snapchat like application where instead of photo users can share different songs with its followers.
- Listed the songs from the SD card, and extracted the title name, artist name along with the snippet of the song using 'Ffmpeg' library which the user can post by clicking on the share button, and where the user can also listen to the different songs of his/her friends. Interface developed with the help of 'fragments'
- Developed using Android Studio with the help of Java at the backend and used Firebase for authentication and for storing the user information and the song snippets, along with the user's list of friends and followers.

#### **MEAN Stack Application:**

Ind Project (Tools used: Node.js, MongoDB, AngularJS, Express.js, Mongoose, CSS, JSON, Visual Studio Code)

- Developed a MEAN application where a user can create, edit and delete its posts, after authenticating the user.
- Integrated user facing angular components with server side using RESTful Web services.
- Used MongoDB Atlas to create a cluster in the cloud for connecting and storing user data in the database.
- User authentication through JSON Web Tokens (JWT).

#### Performed Face Recognition using L1-PCA (Principal Component Analysis):

Course/Independent Project (Tools used: Matlab)

- Selected a user input image of a class (Yale dataset) which will be used for face recognition and error calculation by adding 'salt and pepper' noise patches on different part of the image, to determine the error percentage.
- Computed the 'eigenvalues' and 'eigenfaces' of the images, normalized the eigenvectors by subtracting the sample mean from the column matrix so that the training samples are zero-centered, then performed L1 norm on the matrix.
- Printed the recognized image and calculated the error percentage for the corresponding image.

# **E-Commerce Website**:

Course/ Independent Project (Tools used: HTML, CSS, Javascript, PHP, SQL)

- Maintained a database of various items and created a user interactive website experience with different functionalities such as adding item to cart, checking the price of a product etc.
- Developed test scripts and executed functional tests across a variety of environments
- Maintained a sql database where user details are stored along with the user activities which are regularly updated.

# Twitter REST API to retrieve the friends and followers of a user:

Internship Project (Tools used: Python, Tweepy library, JSON)

- Created a developer twitter application to generate the consumer\_key, consumer\_secret, access\_token and
  access\_key. Gained authentication to access the database by validating the access keys using OAuth package.
- Successfully generated a list of friends and followers of a given user.

#### **Computer Graphics Project using C++:**

Course Project (Tools used: C++, Turbo C++)

• Created a computer graphics animation with the help of C++, using 'graphics.h' library. Here, different functions like fractals, bezier, bresenhem functions were implemented to depict different types of animations using 'Turbo C++'.