

MAHAVIR CHANDALIYA

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EDUCATION

San Jose State University, San Jose, CA

Jan 2022-Present

Pursuing Master's in Computer Engineering.

D.J. Sanghvi College of Engineering, Mumbai University, India

Aug 2016 -Nov 2020

Secured Bachelor of Computer Engineering.

(CGPA: 7.29/10)

Relevant Coursework: Applied Maths, Algorithms and Data Structures, Machine Learning, Data Mining and Big Data.

ACADEMIC PROJECTS

Blood Analyzer Using Image Processing and Computer Vision

- Developed an Automated Blood Analyzer as final year project during undergrad which returns Haemoglobin level, RBC, WBC and Platelet count in the blood from a microscopic blood sample image.
- Implemented the application in Python using various libraries like NumPy, Pandas etc. Analysed the data from each blood-cell image using Image Processing Algorithms as well as developed a GUI using tkinter.

Employee Attrition Prediction Model

- Developed a Prediction Model for Employee Attrition using Employee dataset, applied four ML algorithms, Naïve Bayes, SVM, Decision Tree, and KNN to predict churn rate.
- After testing with different algorithms, Decision Tree algorithm gave the highest accuracy.

Recommender Systems

- Developed a Popularity-based, Model-based, Content-based and Classification-based recommender systems using python's pandas, NumPy and sklearn libraries and evaluated the system using various performance metrics.
- Used Logistic Regression for Classification-based filtering, Nearest Neighbours for Content-based filtering and SVD matrix method for Model-based filtering. Datasets used for analysis includes 100k MovieLens dataset, mtcars dataset, restaurants and cuisine datasets etc.

Age, Gender, Emotion Prediction using Facial Data

- Built an application with Keras, OpenCV and Python that detects faces from a webcam and predicts user's Age, Gender and Emotion in real time using deep learning models.
- Used MTCNN algorithm based on FaceNet for detecting faces and python's cv2 library for capturing video and rendering predictions on the screen. Also wrote a Research paper on the topic for graduate writing class.

PUBLICATIONS

Social Distancing Detection using Computer Vision

- Research paper on Social distancing detection by continually monitoring the distance between people in a public places to enforce social distancing. Developed using Tensor flow, OpenCV and Python, the application detects people on a live video feed from a CCTV camera, highlights the person if social distancing norms are broken.

WORK EXPERIENCE

NRAT Student Assistant at San Jose State University (June 2022 - Present)

- Working as a Student Assistant for Ecampus department at San Jose State. Providing support and resolving queries regarding instructional software used in the school for undergraduate and graduate programs.
- Instructional software includes Canvas, Zoom, Qualtrics, Proctorio, Google applications, Camtasia etc.

TECHNICAL SKILLS

- Python, C, C++, HTML, CSS, JavaScript, SQL, MongoDB, PHP, Node, React, React Native.
- Experience with Tensor flow, Spark, Tableau, Jupyter Notebook, AWS, Linux, Git and GitHub.

CO-CURRICULAR & EXTRA-CURRICULAR ACTIVITIES

- Volunteered in various plantation drives and other social work through NSS (National Social Scheme), a student association that organizes various community service events.
- Volunteered at IDF (Indian Development Foundation), an NGO for Education and Health welfare in Mumbai, devoted 75 hours of community service through health drives and educational events in 2018 – 2019.
- Participated in Coding Hackathons and various Coding Competitions online and also was part of various technical workshops such as Raspberry Pi and Python workshop (Mar 2017), Ethical Hacking and Cellular Security (Oct 2016).