

UMANG SHAH

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Boston, MA

SKILLS

- Python, Java, C, C++
- Machine Learning
- MySQL, MongoDB
- Keras, PyTorch
- Django, Flask
- Pandas, NumPy
- Computer Vision
- OpenCV, SciKit-Learn

EDUCATION

University of Massachusetts Boston

M.S. Computer Science – GPA 4.00/4.00

Course Highlights: Analysis of Algorithms | Neural Networks

Boston, Massachusetts

Sep 2022 – May 2024

Gujarat University

M.Sc. Artificial Intelligence & Machine Learning – GPA 4.00/4.00

Course Highlights: Machine Learning | Deep Learning | Computer Vision | Advanced Python

Ahmedabad, India

Jul 2018 – Jun 2020

Ahmedabad University

Bachelor of Computer Application – GPA 3.97/4.00

Course Highlights: Data Structures and Algorithms | OOP | Advanced Database Management System | Advanced Java Technologies

Ahmedabad, India

Jul 2015 – Jun 2018

EXPERIENCE

Associate Software Engineer

GlobalVox Ventures Pvt. Ltd.

January 2020 – June 2022

- Explored and implemented various Deep Learning and Machine Learning techniques for Facial Recognition.
- Designed workflow, backend API using flask and database schema using MongoDB for Facial Recognition APIs to store and identify more than 100k faces under 2 seconds. Implemented role-based access control. Documented APIs using SLATE documentation tool.
- Implemented rate-based API structure in which customers can buy coins to use APIs and then on each call of the API coins get reduced based on the API rate. Implemented logic to configure rate and status for each API from admin panel.
- Worked on Facial Expression Recognition to categorize Angry, Sad, Happy, Disgust, Fear, Surprise emotions with 73% accuracy.
- Built Indian Numberplate Detection using YOLO that detects plates under 1 second utilizing data gathered from streets.
- Integrated PayPal and Stripe payment methods which helped more than 10,000 users to avoid manual bank transfer process.
- Created APIs for the entopedia.in project, which supports over 10,000 users inside Reckitt, utilizing the Django Rest Framework.
- Integrated OKTA SSO with Django Rest Framework to make authentication task easier.
- Mentored an intern over the span of 6 months and ensured code quality of each project by peer code review.

PROJECTS

Person Re-identification

- Re-identifying a person in an environment with multiple cameras using person detection, feature extraction and classification. For person detection, the FRCNN object detection network was used. The ResNet50 network was employed for feature extraction, and classification was based on calculating the Euclidean distance between extracted and stored features.

Finding Initial Centroids for K-Means Clustering

- Research work under prof. Trushali Jambudi to identify initial centroids and speed up the convergence of K-Means algorithm. The implementation was done using R programming language.

Government Prosecutors Portal

- A website in which prosecutors can manage their case studies, calendar and election process. The portal can help prosecutors manage their handwritten data online in a more structured way. Developed backend in PHP, created database structure to store data inside MySQL database and integrated it with HTML based frontend.

Note Management System

- A Java based application tool like Google Keep which uses MySQL database to store and retrieve notes, reminders, doodles and images. Users can set reminders which will be emailed on the specified date and time. Users can also share notes with other users and can make changes to shared notes.

ACHEIVEMENTS

- Secured 1st Rank in MSc (AI & ML) at Gujarat University and in BCA at Ahmedabad University.
- Winner of Code-Villa Software Programming Competition in State Student Convention Gujarat.
- Certified CYBER SECURITY EXPERT from Techdefence.