KARNA MEHTA

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EDUCATION

University of Southern California, Viterbi School of Engineering   **Los Angeles, CA**
MS in CS (01/25-Present)

Dwarkadas J Sanghvi College of Engineering   **Mumbai,India**
BTech Information Technology (02/21–06/24)   GPA : 9.14/10
Honors: Development Operations (DevOps)

INTERNSHIPS and TRAINING

Shiga Corp   Salem, Tamil Nadu
ML Engineer and Data Science Intern (06/14/23–9/9/23)

- My team and I had to deliver prototypes according to client requirements.
- Some of the Prototypes developed here include : Employee Resignation Prediction , AI Manager Chatbot, Flower Recognition and Plant disease detection , Transaction fraud Analysis, Credit Risk Prediction with Explainable AI : [Prototypes Delivered](#)

Brainlox   Mumbai, Maharashtra
Python Developer and Instructor (07/12/22–09/11/22)

- Managed backend development in Python, utilizing Flask for building and maintaining web applications.
- Conducted virtual lectures to teach Python programming to school students, providing clear instructions.

PROJECTS

Q&A Chatbot for a Tourist in an Unknown City

- Developed a chatbot using NLP techniques to assist tourists in navigating unknown cities.
- Utilized PyTorch for building and training NLP models

Quality Inspection System for Metal and Pills Defect Detection

- Designed a defect detection system for quality assurance in manufacturing in the domain of metals and textiles by applying morphological operators for metal defect detection and utilized YOLOv8 for identifying pill defects.
- Achieved significant accuracy in defect detection, published in IMAVIS Journal.

Online Math Tutoring System for Teaching 'Area Under the Curve'

- Built an online platform to teach mathematical concepts of Area Under the Curve(Definite Integrals) using Scaffolding and MERN stack. The research paper for the same has been presented at the ICACIT Conference.

Early Detection and Diagnosis of Brain-Related Diseases

- Created a system for early diagnosis of brain diseases by combining speech analysis (Parselmouth-Praat) and MRI image classification (DenseNet). Achieved early detection with high precision, presented at ICICBDA Conference.

Health Record Portal for Patients Predicting Diseases and Recommending Precautions

- Designed a health portal for storing patient records and predicting diseases
- Applied machine learning algorithms to predict diseases from symptoms and recommend preventive measures for the same.

Handwritten Text Recognition and Grammar Correction

- Built a system to recognize handwritten text from images and correct the grammatical errors if any
- Implemented with OpenCV and OCR for image preprocessing and Text extraction and applied NLP techniques for text recognition and rectify grammar errors.

Flower and Plant Species Identification

- Trained a Deep Learning model on 6600 images of different flower species

CO-CURRICULAR Activities

DJS-LIT (Official Literary Society of DJSCE)   **(07/2- 06/23)**
Served as the **Logistics Head** for the literary society, managing events and operations.

DJInIT.AI (Official AI/ML Club of DJSCE) (Junior Mentor)   **(09/22-07/23)**
Guided and mentored students in AI/ML concepts and projects. Besides,conducted workshops and hands-on sessions

DJInIT.AI (Official AI/ML Club of DJSCE) (Vice-President)   **(08/23-06/24)**
Took on a leadership role to oversee club activities and initiatives. : Led project collaborations, organized knowledge events

Class Representative
Served as a class representative in my Bachelor's catering to various problems of my classmates.

SKILLS AND INTERESTS

C , C++ , Java , Python , Javascript , Machine Learning , Computer Vision , CSS , ReactJS , Natural Language Processing , Django , PowerBI , Flask , MongoDB , MySQL, Generative AI , Leadership skills, Effective Communication and Listening Skills, Customer Service, Problem Solving , Teaching and Mentoring.