JAHNAVI VIKRAMA

Address: 3029 Shrine Pl, Los Angeles, CA | Contact: +1(213-663-5629) | vikrama@usc.edu | https://jahnavi-vikrama.github.io/website/

EDUCATION:

Master of Science in Computer Science Engineering **Aug 2019 - May 2021**
University of Southern California, Los Angeles, USA
GPA:3.7

Bachelor of Technology in Computer Science and Engineering **Aug 2015 - May 2019**
Mahindra Ecole Centrale, Hyderabad, India
GPA:9.5
Courses: Algorithms and Data Structures, Design and Analysis of Algorithms, Artificial Intelligence,Software Engineering, DBMS,Operating Systems, Image Processing using PDE's, Web Technologies, Computer Networks, Cloud Computing, Machine Learning (At UT Austin), Calculus and Probability
Certificates: Complete Web Development course 2020(Udemy), Self-Driving Car- Applied Data Science, French – A1

SKILLS:

Programming Languages **:** Python, Javascript, Java , C,HTML, CSS, Matlab,
Tools/Frameworks **:** React, Numpy, Pandas, SciPy, Scikit-learn, Tensorflow, Keras, NLTK, OpenCV, Git, Github,
Databases. **:** MySql, MongoDB

EXPERIENCE:

The University of Texas, Austin: **Jun 2018 - Oct 2018**
Undergraduate Research Internship

- Developed a framework with a team of 3 by combining scholarly papers (Segment Everything and Mask R-CNN) for generating bounding boxes and segmentation masks for neuropil data.
- Compared various Convolutional Neural Network (CNN) architectures like RCNN and YOLO models against our model for instant segmentation of images.

Mahindra Ecole Centrale, Hyderabad: **Jun 2019 - Jul 2019**
Teaching Assistant

- Worked as a teaching assistant for the ML bootcamp by the Computer Science department for around 60 students.
- Assisted with design of lessons plan, conducted tutorial sessions, developed exciting assignments, and debugged code for students.

PROJECTS:

Self-driving Bot: **Feb 2019 – May 2019**

- Built an autonomous pi-car using Raspberry Pi microprocessor to detect the track from the images supplied by a pi-cam and adjust steering angle and the motor speed to keep the car on the track.
- Implemented Convolutional Neural Network model inspired from End to End Learning for Self-Driving Cars paper by NVIDIA for this purpose and trained model using open source by Udacity self- driving car.
- Used data augmentation and preprocessing techniques and obtained validation loss of 0.03.

Web App-Keeper: **Dec 2019 – Jan 2020**

- Built a web application that allows users to register, login and stores their to-do list. Allowed logging in with google and security using hashing.
- Used React, Node.js and MongoDB for implementation.

Voice Recreation using RNN: **Nov 2018 – Jan 2019**

- Implemented Text to Speech system using Tacatron model to generate a famous actor's voice by training RNN model on Nvidia DGX-1 system.
- Employed spectrogram, duration and acoustic features(harmonics) as features, utilised techniques of data scraping using beautiful soup, and got Mean Opinion Score of 56.8%.
- Performed literature survey on three prominent models for voice recreation: Tacatron, Deep Voice and Wavenet.

Conformal Recommender System: **Feb 2018 – Apr 2018**

- Implemented Conformal Recommender System with a team of 2 for recommending movies based on previous watch list using Movie-Lens dataset.
- Provided confidence to the recommendation using conformal prediction with recommender system to give bound on the probability of making an error while recommending.

Automatic Switch Control: **Feb 2018 – Apr 2018**

- Designed a prototype with Arduino microcontroller connected to a relay driver circuit can be used, together with an Android phone as centralized switch for controlling simple appliances using internet.
- Used Basic4AndroidIDE to create android application and java for server client programming.