# CHETHAN CHINDER CHANDRAPPA

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## EDUCATION

**University of California, Los Angeles(UCLA),** Los Angeles, United States          **present**
Master of Science in Electrical and Computer Engineering (Signals and Systems),**CGPA**: 4.0/4.0

**Sri Jayachamarajendra College College of Engineering(SJCE),** Mysore, India          **May 2018**
Bachelor of Engineering in Electronics and Communication, **GPA**: 9.06/10

## TECHNICAL SKILLS

**Languages**: Python, C++, C , Javascript, Java
**Technologies/Tools/Frameworks**: PyTorch, OpenCV, Numpy, TensorFlow, Matlab, Scikit, Linux, Cypress, Selenium

## COURSES

- Linear Algebra
- Neural Networks and Deep Learning
- Computer Vision
- Digital Image Processing
- Computational Robotics
- Computational Imaging
- Statistics and Probability
- Data Structures and Algorithms

## PROFESSIONAL/RESEARCH EXPERIENCE

**Graduate Student Researcher- Visual Machines Group, UCLA ( Python, Pytorch)  Feb 2022 - present**
*UCLA, Los Angeles*

- Deraining and Desnowing project: Working on creating a large scale dataset of rainy, snowy and clean image pairs and method to remove degradations in the image using Contrastive learning

**MicroFocus (Javascript, Cypress, Selenium)**          **Aug 2018 - Jul 2021**
*Software Design Engineer*          Bengaluru, India

- Implemented and orchestrated the development of UI-Automation framework using Cypress and JavaScript in an Agile Environment.
- Proposed and Redesigned the Regression Test suite for reduced time execution.

**e-Yantra Robotics Competition (OpenCV, Numpy,Python, C++, V-REP,)**
*Collector Robot in Agricultural theme,IIT Bombay*          **Oct.2017 - Mar.2018**

- Designed and Developed a Robotic system to collect the farm produce on the arena using Collector Robot and deposit them on the Truck which is moving around the arena

*Navigate a terrain in space exploration theme,IIT Bombay*          **Oct.2017 - Mar.2018**

- Implemented Robotic system to explore a terrain with the help of guided laser for shortest path traversals

## PROJECTS

**Implementation of NeRF and its variants (Python , Tensorflow )**          **Mar 2022- present**
*UCLA, Los Angeles*

- Implementation of research paper Neural Radiance fields for view synthesis and experimentation with its variants

**EEG Classification (Python , PyTorch)**          **Feb-2022 - Mar 2022**
*UCLA, Los Angeles*

- Implementation of Deep Spatial CNN LSTM network for classification of EEG signals

**BioFaceNet: Deep Biophysical Face Image Interpretation (PyTorch, Numpy)**          **Dec 2021 - Jan 2022**
*UCLA, Los Angeles*

- Implementation of Research paper Biofacenet, to decompose the single RGB face image into Bio-physical parameters like melanin and Haemoglobin content, diffuse and specular maps
- Trained and tested the model based on Encoder-Decoder architecture in pyTorch using Augmented CelebA dataset

**Static Keypoint Extraction for Visual Odometry (OpenCV, C++, Python )**   Sept 2021 - Dec 2021

*Computational Robotics, UCLA, Los Angeles*

- Designed and Developed an Algorithm to extract ORB Keypoints only from static objects in a Dynamic environment by using Geometric vision techniques and semantic segmentation.
- Experimented with optical flow techniques and Depth data to find the Dynamic regions in the scene with TUM-RGBD dataset and Implemented camera Pose estimation using only static correspondences

**Panorama stitching and 3D reconstruction. (Python, Numpy)**   Nov 2021

*Computer Vision, UCLA, Los Angeles*

- Designed and Developed a pipeline from scratch to stitch images to create Panorama
- Triangulation of 3D coordinates using stereo reconstruction.

**Natural scene text recognition for visually impaired (Python,TensorFlow)**   Aug 2017 - May 2018

*SJCE, Mysore*

- Implementation of text Segmentation pipeline in the wild and recognition of English characters.