

SKILLS

Coding Language

Python ●●●●●
C++ ●●●●○
JavaScript ●●●○●

Front End Development

ReactJS ●●●●○
BootStrap ●●●○●
CSS ●●●○●
HTML ●●●●●

Back End Development

Flask ●●●●○
Node.JS ●●●●●
SQL ●●●●○
MONGODB ●●●●○

Technologies

REST API ●●●●○
JSON ●●●●○
Android ●●●●○

Operating systems

Windows
Linux

Editing

Premier ●●●●○
Photoshop ●●●●○

Relevant Coursework

Web Technology
USC Summer 2020

Analysis of Algorithms
USC Fall 2019

Fundamentals of AI
USC Spring 2019

Applied Machine
Learning
USC Spring 2019

Information Retrieval
USC Spring 2021

Languages

English ●●●●●
Hindi ●●●●●
Marathi ●●●●●
German ●●●●○

Organizations

IEEE (since 2018)
ACM (since 2019)
NSPE (since 2019)

EDUCATION

University of Southern California: Masters of Computer Science
Savitribai Phule Pune University: Bachelors of Computer Engineering

AUG 2019 – MAY 2021
AUG 2015 – MAY 2019

WORK EXPERIENCE

JUMP WATTS

SEP 2020-DEC 2020

Software Development Engineer: Computer Vision Intern

- Designed detection, classification and segmentation models using Python, Tensorflow, Keras.
- Constructed data ingestion pipelines, implementing APIs and model deployment on the edge and on the cloud.
- Modified existing streaming capabilities to mitigate latency issues using Gstreamer and Web-RTC
- Filed for a Provisional Patent for a product running highly optimized computer vision algorithms

IMPACE SYSTEMS

JUN 2017-SEP 2017

Software Development Intern: Research and Development

- Researched lightweight communication protocols for automated data collection from edge sensors.
- Developed a framework for connecting edge sensor, and data collection using MQTT protocol, on Android and Windows Platforms.
- Visualized collected data using Python (Matplotlib & Numpy), to glean valuable insights for clients.

PROJECTS

WEB CRAWLER FOR NEWS SITE

FEB 2021

- Crawled LA times website for URLs, images and documents, presented statistics regarding the collected data.
- Used Crawler4j (JAVA) and Scrappy in Python for crawling websites.

NETFLIX CLONE

JAN 2021

- Created a clone of Netflix User Interface to display the poster and description of the movie, along with ratings and comments of the viewers.
- Used React, BootStrap for Front End and Flask for Back End. The information was obtained using the IMDB API.

SIDEWALK DETECTION

NOV 2020

- Optimized the work flow and efficient use of resources on the edge by replacing the legacy Semantic Segmentation model with a lightweight CNN model, for classifying on the basis of texture of the road and the sidewalk.
- Worked on Developing Pipelines for efficient data collection and storage by defining useful data structures.
- Deployed CNN model on Raspberry Pi on the edge using Tensorflow Lite.

PRODUCT SEARCH WEBSITE FOR WEB STORE

MAY 2020

- Deployed API on Google Cloud Platform to return cleaned response from EBAY API.
- Designed Responsive Front End using Angular, Bootstrap, HTML5, CSS. Used Flask for development of Back End.

Project Link: <https://nodejsae-279923.uc.r.appspot.com>

ANDROID APPLICATION FOR ONLINE RETAIL STORE

MAY 2020

- Created an Android Application for fetching results using EBAY API.
- Used Picasso for handling threading, downloading and displaying images, Volley for handling networking.

DEEP REINFORCEMENT LEARNING AGENT FOR TRACKMANIA

MARCH 2020

- Created a pipeline for training reinforcement learning agent to play a video game, using Deep Q Learning strategy. Formalized definition of state, detected features from input.
- Designed pipelines for data collection, designed custom loss functions for reinforcement learning and created unique data structures for handling buffer states.

NEURAL NETWORK FRAMEWORK

MARCH 2020

- Developed a minimal framework for creating Dense Neural Network in Python.
- Implemented Forward and Back Propagation Algorithms, for activation functions including relu, sigmoid and softmax and means for aiding hyper-parameter tuning, similar to Tensorflow.

GO GAMEPLAY AGENT

JAN 2020

- Developed an AI agent to play the board game GO, using strategy of alpha-beta pruning in Python.
- Implemented A* algorithm to traverse the search space for gameplay, and compared the gameplay of the two agents.

PATH PLANNING USING RRT

OCT 2019

- Implemented a planning and shortcutting algorithm to allow a robotic arm with a 6-DOF to traverse task space from start to goal state, avoiding obstacles in its path in Python Using ROS.
- Involved studying path planning algorithms, and various types of RRT algorithms.

CERTIFICATIONS

- “Introduction to TensorFlow for Artificial Intelligence” @CourseEra DeepLearning.AI
- “Neural Networks Deep Learning” Certificate Course @CourseEra DeepLearning.AI
- “Convolutional Neural Networks in TensorFlow” @CourseEra DeepLearning.AI