

# Sanjana Srinivas

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## Education

### San Jose State University

San Jose, CA

MS IN COMPUTER ENGINEERING, GPA 3.91/4.00

Dec. 2021

### PES Institute of Technology

Bangalore, India

BE IN ELECTRONICS AND COMMUNICATION, GPA 8.99/10.00

May 2017

## Skills

**Languages** Python, HTML, JavaScript, Bootstrap, CSS, Typescript, C++

**Tools** Tensorflow, Pytorch, Matplotlib, Sci-kit, Numpy, Pandas, Seaborn, OpenCV

**Frameworks** Angular, NodeJS, Cassandra, MongoDB, MySQL, Magento, Avaamo Chatbot, Git, Docker

**Coursework** Machine Learning, Data Mining, Introduction to Computer Vision, Deep Learning, C++, Cloud Computing - AWS

## Experience

### Juniper Networks

Sunnyvale, CA

SOFTWARE ENGINEERING INTERN

June 2021 - Present

- Working on time-series forecasting to predict resource utilization in routers and data centers using models like **LSTMs**, **Hidden Markov** and **Arima**.  
Technology used: **Tensorflow**

### San Jose State University

San Jose, CA

RESEARCH ASSISTANT

July 2020 - May 31

- Built monocular depth estimation neural network, reproduced results from popular works like monodepth, monodepth2 and DORN on KITTI and CityScapes datasets. Technology used: **Pytorch**
- Improved runtime performance of neural networks by introspecting neural network weights and activations through layer pruning and **8-bit integer quantization**. Together to achieve 79% memory compression and 38% improvement in runtime performance (benchmarked on Intel Core i7-6700K CPU) with 4% drop in performance. Submitted a report to **Symposium on Edge Computing 2021** on the same. Technology used: **Pytorch**

### Wipro

Bangalore, India

FULL STACK DEVELOPER

Aug. 2017 - Oct. 2019

- Worked on ideation, wireframing, prototyping, developing and deploying a solution for mobile number portability. Technologies used: **Angular 6**
- Developed a POC for Ericsson and integrated the their front-end with RESTful web services. Worked with teams to prototype various web and mobile applications demonstrated at Mobile World Congress 2018 and 2019 Technologies used: **Angular 4, Ionic, NodeJS, MongoDB**

SOFTWARE ENGINEER INTERN

Feb. 2017 - Jun. 2017

- Developed a product using MVC architecture that can be used to purchase mobile recharge plans. Technologies used: **AngularJS, Magento**

## Projects

### Face Segmentation & AR Makeup

- Implemented deep neural network using Tensorflow framework to perform **semantic segmentation** of different parts of the face using CelebAMask-HQ dataset. Obtained an accuracy of **93.13%** and mIOU of **60.9%**. Technologies used: **Tensorflow, OpenCV**
- Developed end-to-end application using alpha-matting to change lip and hair color. Technologies used: **ReactJS, NodeJS, TensorflowJS, OpenCV.js**

### Grape Disease Detection and Classification

- Implemented various machine learning models - **Random Forest, SVM** and **deep neural networks** to detect and classify grape diseases.
- Implemented ensembling schemes of bagging and stacked prediction to improve performance.
- Obtained accuracy of **98.23 %** on the test set. Technologies used: **Python, Scikit-learn, Tensorflow**

### Wildfire Analysis and Prediction

- Built a dataset by scraping wildfire and corresponding temperature and precipitation data from Geospatial open data portal and National Weather Service Forecast portal for Washington State.
- Predicted the occurrence of wildfire given the temperature and precipitation details of the region using Logistic Regression model. Obtained accuracy of **84.29%**. Technologies used: **Python, Scikit-learn, Matplotlib, t-SNE**

### Car Rental Application

- An end-to-end application that enables renting autonomous cars. The multi-tenant application includes booking, payment transactions and history. Technologies used: **Flask, MySQL**
- The application was hosted on AWS with features including auto-scaling and load balancer. Technologies used: **AWS Elastic Beanstalk**

## Awards

**SJSU** Davidson Scholar Award for the proposed research activities

**Wipro** Victory League Recognition - MWC and World IP Day Demos

**Skating** Ekalavya Award, **Highest Sporting Award in the state of Karnataka, India. Participated** in World Roller Speed Skating Championships, Haining. **Bronze medal** in Relay, Asian Ice Skating Championships, Taiwan.