Sanjana Srinivas

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Education

San Jose State University — *San Jose, CA*

MS in Computer Engineering, GPA 3.92/4.00 — *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++

ML 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, Neural Prophet** 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 channel pruning and **8-bit integer quantization**. Achieved 81% memory compression and 39% improvement in runtime (benchmarked on Intel Core i7-6700K CPU) with negligible drop in performance. A paper on the above work was accepted at **IEEE BigData 2021** conference whose acceptance rate is **19.9%**. 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***

Fashion Recommendation System

- Built similarity based visual recommendation system using DeepFashion dataset.
- Used pretrained ResNet to generate image embeddings of the gallery set. A **nearest neighbor classifier (Annoy)** was built using this gallery set with **cosine similarity** as the distance metric. Technologies used: ***Pytorch, Fastai, Pandas, 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.