

SHREERAM NARAYANAN

shreeram@usc.edu | +1 (213) 675-6395 | Los Angeles, CA | <https://www.linkedin.com/in/shreeram-narayanan-07>

EDUCATION

University of Southern California <i>Master of Science, Electrical and Computer Engineering</i>	Los Angeles, CA	May 2023 GPA: 3.84/4
Sardar Patel Institute of Technology, Mumbai University <i>Bachelor of Engineering, Electronics and Telecommunications</i>	Mumbai, India	May 2020 GPA: 8.69/10

TECHNICAL SKILLS

- **Programming Languages and OS:** Python, C, C++, Java, JavaScript, HTML, CSS, SQL
- **Libraries and Frameworks:** NumPy, Scipy, Pandas, Scikit-Learn, GluonCV, Apache Mxnet, PyTorch, TensorFlow, Matplotlib, Keras, OpenCV, NLTK, Flask, AngularJS, NodeJS, Apache Spark, Apache Hadoop
- **Databases, Platforms and Cloud Technologies:** MySQL, Docker, AWS (EC2, S3), GCP, MongoDB, DynamoDB

EXPERIENCE

Graduate Student Researcher, CPS-VIDA Lab, University of Southern California • Train a neural network to perform monocular 3D object detection for a real-time perception system	Los Angeles, CA	Feb 2022-Present
Software Development Engineer Intern, Amazon • Built a web-based UI to serve as a base for tooling for common services workflows • Engineered solutions in services team at Amazon Game Studios (AGS) and developed a tool that allows end users to request a Steam key for the New World game. Designed an admin dashboard for management of Steam Keys	Irvine, CA, USA	May 2022-Aug 2022
Machine Learning Engineer Intern, Tericsoft Technology Solutions Pvt. Ltd • Collaborated with a 5-member team on a video analytics project by performing mask and safety-vest detection tasks on CCTV Feeds. The object detection models were trained using Nvidia Transfer Learning Toolkit (TLT), deployed using Nvidia Deepstream intelligent video analytics toolkit • Led a project to create a spell-check application based on Levenshtein Algorithm to correct names of brands entered by data entry engineers. Application was deployed using Flask API on a Dashboard • Implemented data science project on customer behavior based on purchase history by employing Apriori Algorithm and constructed a recommendation system using Collaborative Filtering	Hyderabad, India	Jan 2021-Jul 2021
Deep Learning Engineer Intern, Segmind Solutions Pvt. Ltd • Integrated semantic segmentation networks like Feature Pyramid Network (FPN), LinkNet, object detection networks like FasterRCNN, and instance segmentation networks like MaskRCNN in CNN Research Abstraction Python Library (CRAL) • Part of a 3-member team of a Client Python Library called Segmind Track to enable logging training metrics, system metrics (CPU & GPU), hyper parameters and artifacts of deep learning experiments on a tracking site • Integrated PyTorch Lightning callbacks into the Segmind Track library for users to track performance of a model trained using PyTorch Lightning Deep Learning Framework	Bangalore, India	Jun 2020-Dec 2020

ACADEMIC PROJECTS

Emulated Distributed File System: (Map Reduce, MongoDB, Flask, HTML, CSS) • Built a Distributed File System (DFS) like Hadoop DFS and implemented various commands. Utilized MongoDB and MySQL to store metadata and actual data of file respectively • Developed a web application which takes commands from users and displays results on a web page	Oct 2022
Code Summarizer - Encoder-Decoder Model for summarizing code: (PyTorch, Transformers, Neural Networks) • Designed an encoder-decoder architecture to generate summaries describing functionality of a code snippet • Obtained a bleu-4 score of 15.96 and an EM score of 0.4759 on the test set	Nov 2022
Trip Expense Management Application: (NodeJS, GraphQL, HTML, CSS) • Created a web application for expense management for end users and enable uploading media for a trip • The application is linked with Google Places API and gives an overview of the destination	Dec 2022
TrojanMap – Implementing Graph Algorithms to build a map application: (Algorithms, Data Structures, C++) • Executed a Map application using C++ to find coordinates of a location on the map, calculate shortest path between two locations and find nearby places from a given location • Applied BFS, DFS, Topological Sort to execute features for the application	Mar 2022
Generating Monet Style Art using Generative Adversarial Networks: (PyTorch, CycleGAN, Neural Networks) • Devised a modified CycleGAN architecture model to generate Monet Style photos from Real ones on the Monet2Photo Dataset • Utilized PyTorch framework to train generator and discriminator CNN models and achieved a Memorization-informed Fréchet Inception Distance score of 55.97 and featured in the Kaggle Competition titled “I’m something of a painter myself”	Nov 2021

LEADERSHIP

• Led 4-member team in competition IICDC-Texas Instruments and reached the finals (Top 30)	Aug 2018-Jun 2019
• Volunteered beach cleanup drives at Versova beach and conducted blood donation camps as Member of Rotaract Club of Thane North End (RCTNE)	Jun 2016-Jun 2017