

SHUBHAM GORE

Los Angeles, California | (213) 756-8327 | spgore@usc.edu | [LinkedIn](#) | [GitHub](#)

EDUCATION

University of Southern California, Master of Science Computer Science

Los Angeles, CA

- Intro to Artificial Intelligence, Machine Learning, Analysis of Algorithms, Information Retrieval

SRM Institute of Science and Technology, BTech CSE with Big Data Analytics

Chennai, Tamil Nadu

- CGPA: 9.3/10

TECHNICAL SKILLS

- Languages and Frameworks: Python, C, JavaScript, Typescript, C++, MERN Stack, Tailwind, Neo4j, Postgres, Prisma ORM, SQL, Git
- Tools and Infrastructure: NumPy, Scikit-learn, Pytorch, Keras, TensorFlow, MLFLOW, LLM RAG, AWS, Tableau, Docker, GAN's

WORK EXPERIENCE

Research Assistant, CDAC

Aug 2023 - Oct 2023, Pune, Maharashtra

- Researched and developed machine learning models (LSTM, GRU) to predict traffic matrices on telecom datasets (Abilene, GÉANT)
- Evaluated multiple approaches, including complete TM, individual OD flows, and top m-OD flows with key element correction
- Discovered predicting overall traffic matrix combined with key element correction balances traffic engineering performance and prediction time

Intern, Avaya Pune, Maharashtra, India Internship

Jan 2023 – Jun 2023, Maharashtra, India

- Collaborated with a team of five on Avaya Social Connections, a cloud-based social media messaging solution integrates contact centers with social business channels Facebook, Instagram, WhatsApp, and Twitter
- Devised and contributed to microservices Facebook connector, contact center adaptor, etc. are built using Java, spring boot, Nodejs, typescript
- Added to features Datadog metrics, monitoring, logging - feature implementation Hashing PII items, graceful shutdown for microservices, Improved security of product by solving sonar scan and Coverity scan bugs, increasing test coverage from 30% to 80%

ACADEMIC PROJECTS

LLM-based Knowledge Graph Retrieval-Augmented Generation (RAG)

Los Angeles, CA

- Built a **RAG(Generative AI) tool integrating Neo4j and OpenAI API** to convert Ecommerce products customer reviews JSON into graph, enabling structured and unstructured data retrieval using entity extraction, **knowledge graphs, and vector-based search**.
- Developed a hybrid search pipeline combining Neo4j graph data with embeddings, providing **RAG context-based question answering of products**.

Lip Reading App

Los Angeles, CA

- Implemented **Lip Net**, a model maps variable-length video sequences to text - deep learning model using **3D Convolutional layers and Bidirectional LSTM** for sequence data processing, and **CTC loss**, trained entirely end-to-end and deployed on streamlit.

Kaggle, Plant Traits (2024)

Los Angeles, CA

- Employed **ConvNeXT, Swin Transformer, and ViT models**, augmented datasets used **spearman-correlation** to get features contributing most to the plant traits, and optimized preprocessing to boost model generalization, accuracy, and performance getting an **R2 score of 4.7**

Customer Churn Analysis

Chennai, Tamil Nadu

- Predicted Churn rate of telecom company's customers leveraging Neural Networks and designing a dashboard of most important features with tableau
- Proposed idea of SMOTE-ENN, nearest neighbor-based algorithm analyzing different strategies for feature engineering for resampling of data set to increase accuracy of model by 4-5%

CO-CURRICULAR ACTIVITIES

- **OCR Data Science Community, SRM** - Led a team of 4 to build an **application for Recognition of characters** in structured and unstructured form using py-tesseract and CNN and OpenCV for image preprocessing to extracting text in a text file and implementing it on Streamlit.io
- Published Customer Prediction leveraging Neural Networks and SMOTE-ENN for Data Sampling AISP'23:3rd International Conference on Artificial Intelligence and Signal Processing