EDUCATION

Mar 2024 University of California San Diego, MS, Computer Science and Engineering, GPA: 4.0/4.0

Coursework: Recommender Systems, Computer Vision, Natural Language Processing, Reinforcement Learning

May 2022 | Indian Institute of Technology Kanpur, BTech, Mechanical Engineering, GPA: 9.22/10

EXPERIENCE

Sep 2023 Software Apps Engineering Intern, Yahoo San Francisco, USA

Jun 2023 > Built a wake word detection SDK using TensorFlow Lite for Yahoo Search App on iOS using Swift.

> Developed an authentication-enabled WebView podspec with easy integration capabilities for YApp developers.

Aug 2022 Software Engineer I, Uber Bangalore, India

May 2022 > Automated the marketing self serve platform to share web-events with ad partners, as a part of the AdTech team.

> Introduced widgets and functionalities using React and GraphQL for the conversion events manager.

Aug 2021 Software Engineering Intern, Uber Hyderabad, India

May 2021 > Implemented time series models to predict Uber Eats data such as city-wise gross bookings, web sessions etc.

> > Analysed the performance of Bayesian LSTM networks, statistical time-series models (SARIMA) and open source packages such as Prophet (Facebook), Orbit (Uber)for real-time forecasting.

Jul 2019 Summer Intern, Talentpod Techserve Bangalore, India

> Built a cognitive filtering based news recommendation system to recommend news based on email messages.

> Experimented with libraries such as NLTK, TensorFlow, Keras, scikit-learn for better classification, keyword extraction, and document analysis to improve the relevancy between the news articles and the user's mails.

</> PROJECTS

May 2019

Spherical CNNs for Climate Modelling, Prof. Rose Yu

UC San Diego, USA

Present Jan 2023

> Building a rotation equivariant, graph based spherical convolutional neural network for weather forecasting.

> Implemented baselines such as linear transformer, U-Net, TF-Net, Fourier Neural Operator, etc.

Mar 2023 Jan 2023 Camera Modelling and 3D Reconstruction using Multi-View Geometry, Prof. Ben Ochoa

UC San Diego, USA

> Performed corner detection and feature matching in multi-view geometry images.

> Estimated camera projection matrices using Levenberg-Marquardt optimization.

> Refined stereo vision techniques for accurate 3D reconstruction

Ranking-based Personalized Recommendation Using Social Signals, Prof. Julian McAuley UC San Diego, USA Dec 2022

Sep 2022

> Developed a ranking-based book recommendation feed using the Socialized Personalized Markov Chain model that outperformed sequential (FPMC) and socially aware (BPR) models with 10% improved AUC score.

Apr 2022

Spectrum Based Fault Localization Using Graph Neural Networks, Prof. Subhajit Roy

Sep 2021

> Implemented fault localization problem as a graph neural network with test cases and components represented as graph nodes and computed bug suspicion probabilities.



May 2021 Long Short-Term Memory Implementation Exploiting Passive RRAM Crossbar Array

Sep 2020

H. Nikam, S. Satyam, S. Sahay, IEEE Transactions on Electron Devices

> Encoded Long Short-Term Memory network parameters as the conductance-states of a passive RRAM (Resistive Random Access Memory) crossbar array to perform in-situ computations.

> Introduced a hybrid of stochastic gradient descent and Manhattan rule for training.

Jul 2021

Energy-Efficient Implementation of Generative Adversarial Networks on Passive RRAM Crossbar Arrays

Sep 2020

S. Satyam, H. Nikam, S. Sahay, Under Review, IEEE Transactions on Neural Networks and Learning Systems

> Implemented a hardware-aware simulation of Generative Adversarial Networks, introducing a novel weight-toconductance mapping rule for positive and negative weight matrices.

> Analysed the effects of true random noise as the input on the accuracy and energy efficiency of GANs.

📑 Technical Skills

C++, Python, Swift, Objective-C, JavaScript, MATLAB

Tensorflow, PyTorch, Keras, NLTK, Scikit-Learn, Numpy, Pandas, Git, Django, MongoDB Misc.



Academic

Vibha Gold Medal for exceptional UG project among all graduating female students Academic Excellence Award for exceptional academic performance in sophomore year