

EDUCATION

SAN DIEGO STATE UNIVERSITY

M.S. IN COMPUTATIONAL DATA
SCIENCE

Exp. May 2020 | San Diego, CA

GPA: 3.7/ 4.0

UNIVERSITY OF MUMBAI

B.S. IN ELECTRICAL ENGG.

Aug 2011 - June 2015 | India

COURSEWORK

MACHINE LEARNING

Deep Learning

Machine Learning

Numerical Optimization

Parallel Computing

DATA SCIENCE

Statistical Inference

Big Data: Tools and Methods

Techniques of Data Science

Foundations of Data Science

SKILLS

PROGRAMMING

Python • Matlab • C/C++ (basic)

MACHINE LEARNING

TensorFlow • Keras • Scikit-learn

PySpark

DATA & VISUALIZATION

SQL • Pandas • Matplotlib

Numpy • Seaborn • Scipy

PLATFORMS

macOS • Linux • Git • Docker

GITHUB PROJECTS

Deep Clean : Python package to clean
image and text data.

Quick ML : Read ML notes on the fly.

Data Science 101 : How-to-Guide.

ACHIEVEMENTS

2018 Tuition Scholarship

2017 Tuition Scholarship

2016 Founder @ **ResearchX**

2013 Editor at KC-Xplore

2013 Vice-chairperson - IEEE Branch

EXPERIENCE

DASSAULT SYSTÈMES | DEEP LEARNING RESEARCH INTERN | (PAPER)

June - Dec 2019 | Boston, MA

- Owned, researched and proposed a novel end-to-end deep learning pipeline for accelerating CFD simulations using neural networks.
- Developed SRCFD, a generalized and platform agnostic framework, based on CNN and GCN, that can super resolve coarse-to-fine CFD simulations.
- Built in-house data set for Dassault Systèmes.

HERE TECHNOLOGIES | ANALYST

2016 - 2017 | Mumbai, India

- Worked as GIS Analyst in data-processing team.

RAMAN RESEARCH INSTITUTE | RESEARCH ASSISTANT

2015 - 2016 | Bangalore, India

- Worked on parallelizing signal processing algorithms using OpenCL. A speed up of around 70% in time and a decrease in 30% resource utilization was accomplished.

RESEARCH

COMPUTATIONAL SCIENCE RESEARCH CENTER, SDSU | RESEARCH ASSISTANT

Aug 2017 - May 2019 | San Diego, CA

- MS Thesis: Models for propagating Facilitation in the Insect Visual System.
- Built mathematical models of network of neurons and astrocyte cells in Matlab.
- Studied facilitation mechanism, calcium dynamics in biological cells and analyzed gigabytes of data in Matlab.
- Carried out comprehensive parametric study of our models and thus characterizing facilitation in visual system.

PROJECTS

NEURAL MACHINE TRANSLATION | NLP/ DEEP LEARNING (CODE | REPORT)

- Developed an Machine translation pipeline using recurrent neural networks: simple RNN, RNN with Embedding, Bidirectional RNN, Encoder-Decoder RNN.

IMAGE RECOGNITION USING CNN | COMPUTER VISION (CODE | REPORT)

- Built 5 different Convolutional Neural Networks using Keras and TensorFlow to classify 70,000 fashion images into 10 labels.

AUTOENCODERS | COMPUTER VISION (CODE | REPORT)

- A survey project on family of Autoencoders. Implemented different forms of autoencoders: sparse, denoise, contractive, variational autoencoder in tensorflow.

BAYESIAN OPTIMIZATION | NUMERICAL OPTIMIZATION (CODE | REPORT)

- Built an hyperparameter optimization algorithm that finds better hyperparameters for machine learning models in smaller number of steps than random or grid search.

PARALLELIZED DEEP LEARNING | PARALLEL COMPUTING (CODE | REPORT)

- Accelerated neural network model training time by implementing data based parallelism using MPI.

CHURN PREDICTION | DATA SCIENCE (CODE)

- Built different ML models: SVM, Tree based models, logistic regression for predicting customer churn rate using PySpark and Scikit-learn.