Jaldhir Trivedi

📞 412-478-0062 | 🏠 jstrivedi.github.io | 💼 JaldhirTrivedi | ⭘ jstrivedi | ✉ jaldhirstrivedi@gmail.com

EDUCATION

Carnegie Mellon University Pittsburgh, PA

Master of Science in Mechanical Engineering (Concentration: Machine Learning) GPA: 4.0/4.0 *May 2022*

Master of Science in Engineering & Technology Innovation Management (ETIM) GPA: 3.96/4.0 *Dec 2021*

Relevant coursework: Machine Learning, Deep Learning, ML with Large Datasets, Computer Vision, Natural Language Processing, Product Management, Robot Dynamics

Indian Institute of Technology Gandhinagar (IIT Gandhinagar) Gandhinagar, India

Bachelor of Technology in Mechanical Engineering (with Honours) GPA: 8.1/10.0 *Aug 2018*

EXPERIENCE

Amazon Inc. Bellevue,WA

Software Development Engineer *June'22 – Present*

- Built generalized RNN GRU quantile regressors to predict traffic data for newly onboarded games
- Limit concurrency of Sagemaker and Athena jobs using Lambda State Machine jobs API calls
- Leveraged CloudFormation to create source controlled stacks aimed at dashboarding costs across AWS accounts

LeanFM Technologies Pittsburgh,PA

Data Science Intern *May'21 – Aug'21*

- Developed RNN, LSTM & GRU for **predictive modeling** of air temperatures in HVAC systems with 2°F error

Carnegie Mellon University Pittsburgh,PA

Graduate Teaching Assistant: 24789- Deep Learning & 24787- Machine Learning *Jan'21 - May'22*

- Undertook recitations for students' supplemental learning, organized Office Hours, designed and graded assignments

Hindustan Petroleum Corporation Limited Bhopal & Ahmedabad, India

Officer- Sales & Technical Services, Lubricant Oils *Aug'18 – Sept'20*

- Managed a portfolio that brought average annual turnover of $3 Million and profit of $500,000 for the corporation

PROJECTS

LaplaceNN: Temperature field prediction using CNN Unet architecture Pittsburgh, PA

Supervisor: Dr. Amir Barati Farimani, Carnegie Mellon University *Jan'22 – May'22*

- Used Laplace equation to generate training and test dataset to undertake data driven model training
- Created Unet CNN architecture for a 32x32 cavity that yielded 0.5°C average error on held out dataset

Model Pruning for a deep CNN while retaining near perfect accuracy Pittsburgh, PA

Course Instructor: Dr. Virginia Smith, Carnegie Mellon University *Sept'21 – Dec'21*

- Used **Tensorflow** to create magnitude based pruning for a CNN with 592k trainable parameters
- Achieved 97% model sparsity with the loss of accuracy restricted 2 points

Biomechanics with Deep Learning & Inertial Measurement Units Pittsburgh, PA

Course Instructor: Dr. Amir Barati Farimani, Carnegie Mellon University *Feb'21 – May'21*

- Wrote pipeline in **Pytorch** trains LSTMs to predict Ground reaction forces using IMU data
- Used **Ray tune** to run ASHA scheduler scheme to **tune hyperparameters** to get mean error of 0.08% body weight

UX design for an online tool for automated R&D Tax credit calculations Pittsburgh, PA

Client: Ernst & Young, Course Instructor: Dr.Bob Monroe, Carnegie Mellon University *Feb'21 – May'21*

- Conceptualized **product design** & **UX** using Figma to develop clickable prototype for the online tool
- Studied **market positioning** of the product and adjusted its capabilities to appropriately cater to the niche segment

ACHIEVEMENTS

- **Rewards & Recognition** (Q4 FY 2018-19) for Outstanding Performance, Hindustan Petroleum Corporation
- **IIT Institute Funding** (consecutively in 2016, 2017) for research at ISCTE, Lisbon & Clemson University, SC
- **Dean's List** (Fall'16 & Fall'17) for Outstanding Academic Performance, IIT Gandhinagar

TECHNICAL SKILLS

Programming: Python, JavaScript, TypeScript, MATLAB, SQL

AWS: DynamoDB, S3, Sagemaker, Athena, Cloudformation, EC2, EBS, Lambda, Eventbridge, SNS

Tools: SaS Enterprise Miner, Tableau, Figma, Databricks

Libraries: Pytorch, TensorFlow, Apache Spark, Keras, OpenCV, OpenAI Gym, Ray tune, Matplotlib, pandas, SciPy