

Jaldhir Trivedi

☎ 412-478-0062 | 🏠 jstrivedi.github.io | 💻 JaldhirTrivedi | 🌐 jstrivedi | ✉ jaldhistrivedi@gmail.com

EDUCATION

Carnegie Mellon University	Pittsburgh, PA
<i>Master of Science in Mechanical Engineering (Concentration: Machine Learning) GPA: 4.0/4.0</i>	<i>May 2022</i>
<i>Master of Science in Engineering & Technology Innovation Management (ETIM) GPA: 3.96/4.0</i>	<i>Dec 2021</i>
<i>Relevant coursework:</i> 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
<i>Bachelor of Technology in Mechanical Engineering (with Honours) GPA: 8.1/10.0</i>	<i>Aug 2018</i>

EXPERIENCE

Amazon Inc.	Bellevue, WA
<i>Software Development Engineer</i>	<i>June'22 – Present</i>
<ul style="list-style-type: none">Built RNN GRU quantile regressors to predict traffic data for newly onboarded games to pre provision EC2 instanceLimit concurrency of Sagemaker and Athena jobs using Lambda State Machine jobs API callsLeveraged CloudFormation to create source controlled stacks aimed at dashboarding costs across AWS accounts	
LeanFM Technologies	Pittsburgh, PA
<i>Data Science Intern</i>	<i>May'21 – Aug'21</i>
<ul style="list-style-type: none">Developed RNN, LSTM & GRU for predictive modeling of air temperatures in HVAC systems with 2°F error	
Carnegie Mellon University	Pittsburgh, PA
<i>Graduate Teaching Assistant: 24789- Deep Learning & 24787- Machine Learning</i>	<i>Jan'21 – May'22</i>
<ul style="list-style-type: none">Undertook recitations for students' supplemental learning, organized Office Hours, designed and graded assignments	
Hindustan Petroleum Corporation Limited	Bhopal & Ahmedabad, India
<i>Officer- Sales & Technical Services, Lubricant Oils</i>	<i>Aug'18 – Sept'20</i>
<ul style="list-style-type: none">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
<i>Supervisor: Dr. Amir Barati Farimani, Carnegie Mellon University</i>	<i>Jan'22 – May'22</i>
<ul style="list-style-type: none">Used Laplace equation to generate training and test dataset to undertake data driven model trainingCreated 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
<i>Course Instructor: Dr. Virginia Smith, Carnegie Mellon University</i>	<i>Sept'21 – Dec'21</i>
<ul style="list-style-type: none">Used Tensorflow to create magnitude based pruning for a CNN with 592k trainable parametersAchieved 97% model sparsity with the loss of accuracy restricted 2 points	
Biomechanics with Deep Learning & Inertial Measurement Units	Pittsburgh, PA
<i>Course Instructor: Dr. Amir Barati Farimani, Carnegie Mellon University</i>	<i>Feb'21 – May'21</i>
<ul style="list-style-type: none">Wrote pipeline in Pytorch trains LSTMs to predict Ground reaction forces using IMU dataUsed 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
<i>Client: Ernst & Young, Course Instructor: Dr. Bob Monroe, Carnegie Mellon University</i>	<i>Feb'21 – May'21</i>
<ul style="list-style-type: none">Conceptualized product design & UX using Figma to develop clickable prototype for the online toolStudied 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: Docker, SaaS Enterprise Miner, Tableau, Figma, Databricks
Libraries: Pytorch, TensorFlow, Apache Spark, Keras, OpenCV, OpenAI Gym, Ray tune, Matplotlib, pandas, SciPy