

Jaldhir Trivedi

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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: 3.95/4.0

Dec 2021

Relevant coursework: Machine Learning, Deep Learning, ML with Large Datasets, Computer Vision, Business Intelligence & Data Mining with SAS, Robot Dynamics, Lean Product Development, Product Management

Indian Institute of Technology Gandhinagar (IIT Gandhinagar)

Gandhinagar, India

Bachelor of Technology in Mechanical Engineering (with Honours)

Aug 2018

& minor in Humanities & Social Sciences GPA: 8.1/10.0

EXPERIENCE

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 errors under 2°F
- Developed Ridge, Support Vector & Random Forest Regressor models for fault detection with 91% precision value

Carnegie Mellon University

Pittsburgh, PA

Graduate Teaching Assistant: 24787 Machine Learning & AI for Engineers (Grad level course)

Spring'21 - Fall'21

- 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

- Undertook new Business Solicitation from OEMs & Core sector Industries through Seminars & Product Trials
- Handled Key account management for clients including Power, Electricity distribution, Ordnance & Railways
- Managed a portfolio that brought average annual turnover of \$3 Million and profit of \$500,000 for the corporation

PROJECTS

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 ML Pipeline which preprocesses and trains LSTMs to predict Ground reaction forces using IMU data
- Achieved high accuracy of 0.08% body weight compared to 0.04% accuracy in costly techniques used erstwhile

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 of the online tool
- Studied market positioning of the product and adjusted its capabilities to appropriately cater to the niche segment

Freeze casted Li-ion electrodes for enhanced Battery Performance

Clemson, SC

Supervisor: Dr. Raj Bordia, Clemson University

May'17 – July'17

- Created Li-ion electrode Freeze casted to various temperature to enable 100% higher porosity
- Undertook lab practices such as ball milling, Mo doping, freeze casting & freeze drying

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, R, C++, Java, MATLAB, SQL, HTML

Tools: AWS, SaaS Enterprise Miner, Tableau, Figma, Matlab, Simulink, Databricks, OpenSim, MS Excel

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