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: 3.94/4.0 *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 Forrest 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 of 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, SaS Enterprise Miner, Oracle BI, Tableau, Figma, Simulink, Autodesk Inventor, OpenSim, Databricks

Libraries: Pytorch, TensorFlow, Apache Spark, OpenCV, OpenAI Gym, NumPy, Matplotlib, pandas, scikit-learn, SciPy