Hassan Imani Parashkooh

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☺ About Me

- ✔ Current **PhD student** at York University using **Machine Learning** to analyze molecular trajectories
- ✔ 4+ years of developing **Python** scripts for data analysis, statistical learning and scientific computation
- ✔ Experienced in **Computer Vision** with ability to work independently

⚙ Skills

Languages	Python, C++, Matlab
ML Frameworks	PyTorch, Scikit-learn
Misc	Linux, Bash, SQL, Git, Jupyter Notebook

🎓 Education

PhD in Engineering, York University, Canada	2021 - present
MSc in Engineering, Amirkabir University of Technology, Iran	2018 - 2021
BSc in Engineering, Sharif University of Technology, Iran	2013 - 2018

✒ Publications

Imani Parashkooh, H. and Jian, C. "Data Mining Guided Molecular Investigations on the Coalescence of Water-in-Oil Droplets" Energy & Fuels 2022, 36(4): 1811–1824.

🖥 Selected Projects

Water Droplet Analysis `NetworkX` `Clustering` `Data Visualisation` [More Info]
- A **cluster analysis** on trajectories of water molecules during a dynamic simulation

CS231n Assignments `Computer Vision` `Machine Learning` [GitHub]
- Implementing kNN, **SVM** & **Neural Networks** for **Image Classification**

Computer Vision Using PyTorch `Computer Vision` `PyTorch` `Deep Learning` `Object Detection` [GitHub]
- **Image Classification** on *CIFAR-10* dataset
- Fine-tuning a pre-trained Mask R-CNN model for Pedestrian **Detection** and **Segmentation**

Obtaining Partial Molar Volumes in Mixtures `Regression` `Sampling` [GitHub]
- Analyzing atomistic trajectories and implementing multivariate **linear regression** to obtain partial molar properties of substances in a multi-component mixture

Stock Market Prediction `Pandas` `Scikit-learn` `Time Series Forecasting` `Auto-regression` [More Info]
- Using **auto-regression** to predict the price variation in the following months

📖 Selected Courses

Machine Learning by Stanford University	[Coursera]
Deep Learning for Computer Vision by Stanford University	[Course Website]