GREEN CARD

CONTACT

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SKILLS

Programming

Python
MATLAB
C++
CUDA
Adobe ExtendScript
SQL

Machine Learning

Supervised
Unsupervised
Self-supervised
Classification
Regression
Clustering
Dimensionality Reduction
Anomaly Detection
Object Detection
Segmentation
Object Tracking
Computer Vision

ML/DL Algorithms

Linear Regression
Logistic Regression
Decision Tree
Random Forest
SVM
Bagging
Gradient Boosting
AdaBoost, XGBoost
PCA, KPCA, TSNE
KMeans, KMedoids
Dirichlet Mixture Model
Auto-Encoder
CNN
R-CNN, YOLO
Capsule Net
RNN, GRU, LSTM
Transformer

Version Control

Git
Github

Misc.

Photoshop

Jahandar Jahanipour, Ph.D.

Sr Machine Learning Research Scientist at National Institutes of Health (NIH)

SUMMARY OF QUALIFICATIONS

- PhD in Electrical Engineering with **7+** years of experience in **Data Science**, **Machine Learning/Deep Learning and Computer Vision**.
- Co-founder of **www.easy-tensorflow.com** (with >2.5K stars on GitHub) and 5+ years of experience in **teaching ML/DL algorithms** and holding 10+ workshops and bootcamps.
- Authored multiple papers in high-tier journals including **Nature Communications**, with **100+** citations and reviewed multiple journal/conference papers.
- Developed, deployed and improved upon existing AI models to increase scalability, efficiency and utilization for large image datasets in healthcare applications on High Performance Computing (HPC) clusters.

RECENT WORK EXPERIENCE (SELECTED PROJECTS)

- **NIH** - Postdoctoral Fellow - **Feb 2020 / present**
  - **Research & Development**
    Develop customized open-source visualization, machine learning, deep learning and computer vision tools for comprehensive 2D/3D image analysis of large multiplex fluorescence immuno-histology datasets.
  - **Consultation**
    Provide consultation to biomedical image analysis companies on integration of visualization and quantification algorithms using AI-based techniques.
- **University of Houston** - Research Assistant - **Aug 2015 / Dec 2019**
  - **Research**
    Developed an end-to-end Python-based pipeline for processing multispectral fluorescence 2D image datasets to correct the multiplexed images for pixel-to-pixel registration, fluorescence signal correction and generate quantitative readouts of cell nuclei location, cell type and cell status using image processing, computer vision, machine learning and deep learning algorithms.
  - **Easy-Tensorflow**
    Compose tutorials that aim to make the TensorFlow library more accessible for developers new to machine learning, by providing clear and simple instructions for building, training, and deploying ML/DL models, without requiring a thorough understanding of the TensorFlow API.

SELECTED DATA SCIENCE SKILLS

- **Statistics and Probability**: Descriptive and Inferential Statistics, Hypothesis Testing and Design of Experiment, Bayesian Statistics, etc.
- **Linear Algebra**: Linear subspaces, Eigen decomposition, Singular Value Decomposition, Linear Regression, Lasso and Ridge Regression, Optimization, etc.
- **Programming**: Python (7+ yrs), MATLAB (10+ yrs), C++ (2 yrs), CUDA (2 yrs), Adobe ExtendScript (3+ yrs), SQL (self taught).
- **Python Libraries**: TensorFlow, Keras, PyTorch, Scipy, Scikit-learn, Scikit-image, OpenCV, Numpy, Pandas, Seaborn, etc.
- **Big Data**: Average experience on Spark (pyspark) and Databricks.
- **High Performance Computing**: Linux cluster, Slurm, self experience on cloud computing platforms.
- **Version Control**: Git and Github.

EDUCATION

University of Houston: **Ph.D.** in Electrical Engineering, GPA: 4.0 — Dec 2019