GREEN CARD

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SKILLS
Programming
Python
SQL
MATLAB
C++
CUDA
Adobe ExtendScript

Libraries
Pandas
matplotlib
scikit-learn
scikit-image
OpenCV
TensorFlow
PyTorch
HuggingFace(transformers)
LangChain
LlamaIndex

ML/DL Algorithms
Linear/Logistic Regression
Decision Tree/Random Forest
SVM
PCA, TSNE
KMeans, DPMM
Auto-Encoder, GAN, VAE
CNN, R-CNN, YOLO, DETR
Capsule Net
RNN, GRU, LSTM
Transformer
BERT, GPT, Gemini, T5

Cloud
Google Cloud Platform
Vertex-AI
Docker

Version Control
Git
Github
Azure DevOps

Misc.
Photoshop
Tableau

Jahandar Jahanipour, Ph.D.
Principle Data Science Analyst at Mayo Clinic

SUMMARY OF QUALIFICATIONS

- PhD in Electrical Engineering with **9+** years of experience in **Data Science**, **Machine Learning**, **Deep Learning**, **Computer Vision** and **Natural Language Processing**.
- Co-founder of **easy-tensorflow** (with >2.5K stars on GitHub) and 7+ 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 **200+** citations and reviewed multiple journal/conference papers.
- Developed, deployed and improved upon existing AI models to increase scalability, efficiency and utilization for large datasets on **cloud infrastructres** and **High Performance Computing** (HPC) clusters.

WORK EXPERIENCE

- **Principle Data Science Analyst** - Mayo Clinic - **Jun 2023 / Present**
  - Conduct research, design, and implement deep learning models for computer vision tasks such as object detection, segmentation and classification on large image datasets. Use GenAI techniques such as GANs, VAEs and Diffusion Models for synthetic generation of data to be used in data augmentation and image to image translation.
  - Develop and implement Large Language Models (LLMs) for natural language processing tasks such as summarization, Retrieval-Augmented Generation (RAG), Named Entity Recognition (NER). Fine-tune foundation models, using advanced techniques such as prompt engineering, Parameter-Efficient Fine-Tuning (PEFT), Low-Rank Adaptation (LoRA), and Reinforcement Learning (RL)-based models to optimize performance and adapt the models to specific domains and tasks.
  - Deploy models on Google Cloud Platform using containerization and Docker to leverage scalable computing resources and state-of-the-art infrastructure to enables efficient handling and processing of extensive datasets, optimizing performance and accessibility of the models across different environments.

- **Postdoctoral Fellow/Machine Learning Researcher** - NIH - **Feb 2020 / Jun 2023**
  - Conducted research, designed, and implemented deep learning models for visualization and quantification of computer vision applications for biomedical image datasets.
  - Collaborated closely with biomedical image analysis companies on integration of AI-based algorithms, enhancing deep neural network inference speed and related preprocessing/postprocessing code, guaranteeing performance and smooth deployment on edge devices.

- **Research Assistant** - University of Houston - **Aug 2015 / Dec 2019**
  - 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, noise 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.

EDUCATION

Ph.D. University of Houston   Dec 2019
Electrical Engineering, Machine Learning, GPA: 4.0