MORTEZA GOLZAN

ABOUT ME

I am a Machine Learning scientist with a strong medical image analysis and deep learning background, currently pursuing a Master's in Computer Engineering at the Memorial University of Newfoundland. My expertise includes developing and optimizing deep learning models for computer vision applications, particularly in the healthcare sector. I am passionate about the development of cutting-edge technologies and am known for my collaborative spirit and ability to quickly adapt to new technologies

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EDUCATION

Memorial University of Newfoundland (MUN)

M.S., Computer Engineering Dec 2024 | St.John's, Canada GPA: 4/4

University of Tabriz

M.S., Electrical Engineering Jan 2017 | Tabriz, Iran GPA: 4/4

Urmia University

B.S., Electrical Engineering Aug 2014 | Urmia, Iran GPA: 3.8/4

HONORS

Full Funding

For M.S. program at Memorial university

First High CSPA Among 20 Students

For M.S. program at Tabriz university

COURSEWORKS

Machine Learning Linear Algebra Differential Equations Generative AI with LLMs (Coursera)

INTERESTS

Traveling • Fitness • Painting Self-improvement

SKILLS

Programming | Python: OOP • Data structure • Algorithm design & analysis

Data | Data analysis & visualization: Pandas • NumPy • Matplotlib • Scikit-learn

AI & Machine Learning | ML: Pytorch • Keras

Soft Skills | Team player • Bias for action • Result-Oriented

WORK EXPERIENCES

Radial Co.

AI developer

Tehran, Iran Nov 2021 - Nov 2022

- Developed machine learning-based algorithms for cuffless blood pressure measurement enhancing accuracy by 15%.
- Collaborated with a team of engineers and data scientists to improve the hypertension management system's accuracy and efficiency, reducing processing time by 20%.
- Conducted extensive research and testing to ensure the reliability and effectiveness of the developed algorithms.

Shenasa Co.

Deep learning developer (Internship)

Tehran, Iran Jun 2021 - Oct 2021

- Implemented a deep neural network (DNN) model using PyTorch, increasing detection accuracy by 25%.
- Leveraged GPU acceleration for training, incorporating advanced data augmentation techniques to enhance model generalization.
- Optimized the face recognition pipeline, reducing detection failures by 30% and improving overall system robustness.

SELECTED PROJECT

M.S. Thesis: Whole Body Tissue Estimation from Sub-Body FOVs in CT Scans

- Preprocessed DICOM CT scan images to standardize and normalize the input data for analysis.
- Developed a ResNet50 convolutional neural network (CNN) to classify the input into multiclass FOV categories (e.g., chest-abdomen-pelvis, chest-only).
- Developed regression models for each FOV to predict whole-body composition, including measurements for skeletal muscle (SKM), subcutaneous adipose tissue (SAT), intramuscular adipose tissue (IMAT), and visceral adipose tissue (VAT).