

Mory Gharasuie

Norfolk, VA, USA | mmohao14@odu.edu | +1 757 287 1602

<https://www.linkedin.com/in/mory-gharasui-53415258/> |

<https://github.com/mortezamg63>

Education

Old Dominion University | Norfolk, USA

Aug 2019 – present

PhD candidate in computer science

GPA: 3.84/4.0

Research Interests: Self-Supervised Learning and Semi-supervised Learning in Imbalanced datasets (Image, Text and Tabular Domains)

University of NabiAkram | Tabriz, Iran

Master of Science in Computer Engineering

University of Shamsipoor | Tehran, Iran

Bachelor of Science in Computer Engineering

Technical Skills

Programming & databases skills: python, Java, C++, ASP Webform, C#, SQL, MySQL, HTML

Libraries: Tensorflow, Keras, PyTorch, OpenCV, Scikit-learn, NLP toolkit, HuggingFace, Pandas, Matplotlib, Seaborn, LangChain, Dask, BeautifulSoup, Flask, Weights & Biases

Development and deployment: Anaconda, Jupyter Notebook, Google Colab, Visual Studio, Git, Docker, Slurm, AWS, SageMaker, Modal service for inference, FastAPI, Rest API

Operating Systems: Windows, Linux, Mac OS X

Certifications

LanGraph: [Link](#)

LLM Engineering: [Link](#)

AWS SageMaker: [Link](#)

Awards and Honors

"Best Teaching Assistant" award, Spring 2025

Experience

Royan Communication Company | Qom, Iran

2013 - 2019

Software Developer

- Developed software solutions for small and medium-sized enterprises, including company websites, and built systems (automation application) that increased workflow efficiency by 30% and reduced human error rates by 50%.
- Customized web-based administration interfaces for applications on Linux servers (such as chat server, FreeRadius server, and Elastix for VOIP).
- Enhanced the panels with support for multiple languages and designed them to be more intuitive and user-friendly, tailored to meet the specific needs and preferences of the customers.

Old Dominion University | Norfolk, USA

Aug 2019 – Present

Research Assistantship

- Utilized multiple programming languages to support interdisciplinary research collaborations
- Developed applications for mobile and serverless domains by leveraging ML, DL, and CV.
- Doing research on improving the performance of ML and DL models on classification problems for tabular data in SSL settings.
- Research on mitigating the impact of bias in imbalanced data in training ML and DL models in Image and tabular domains.

Teaching Assistantship: Programming with C/C++ and Java (CS150, CS250, CS251)

- Conducted Labs and recitations
- Assignment Development

- Grading

Medical Aid | Norfolk, USA

Summer 2024

Developed an LLM-powered ChatBot for medical data analysis using Retrieval-Augmented Generation (RAG):

- Extracted key medical information from patient inputs, referencing scientific papers and resources.
- Presented outputs in standardized medical reporting formats.
- Generated diagnostic support questions and considerations based on recent literature to enhance clinical decision-making.

Projects

Data Science and Machine Learning Projects | *Tensorflow, PyTorch, TorchVision, OpenCV*
Scikit-learn, Seaborn, Matplotlib, Pandas, Git, BeautifulSoup, AWS

[GitHub](#)

Created and managed a repository featuring data science and machine learning projects (supervised and unsupervised learning). These projects involve working with various datasets and machine learning algorithms from traditional to STOA. The repository includes:

- Data preprocessing and data transformation
- Exploring data analysis (EDA)
- Feature engineering and selection
- Machine learning (ML) development and evaluation (DNNs, Decision-Tree based models, Regression, Recommendation models, etc)
- Data visualization and interpretation
- ML deployment

Pricer (Agentic LLM) | *HuggingFace, Pytorch, LangChain, Chormadb, BeautifulSoup, Scikit-learn*

[GitHub](#)

An autonomous price estimation framework using LLMs (GPT-4o, Claude, Llama 3.1-8B) and traditional ML models (Random Forest, SVM, Word2Vec). GPT-4o-mini's performance (average price difference) with RAG, improves from 80.9 to 55.57. I fine-tuned Llama3.1-8B and achieved 46.67 average error. I developed an agent that creates an ensemble model combining RAG+GPT-4o-mini, fine-tuned Llama, and Random Forest, achieving 54.62 error. I use a Gradio-based UI and integrated Pushover API for real-time deal alerts from DealNews.Com.

Agentic AI | CrewAI, OpenAI Agents SDK, LangGraph, AutoGen

Working on autonomous LLM-based agents for commercial tasks automation using CrewAI and OpenAI Agents SDK. Implemented tool-calling, memory management, and multi-step reasoning patterns. Built agent workflows for code analysis and remediation, integrating open-source protocols such as Anthropic's Model Context Protocol (MCP) to enable agents to access external tools and data sources. My practices include collaborative agent orchestration with LangGraph and AutoGen, to deliver robust, scalable solutions.

Imbalance Learning (SSL) | *Pytorch, Tensorflow, Tensorboard, Scikit-learn, Matplotlib, Seaborn, Self-supervised, Unsupervised, Semi-Supervised, Slurm, Docker*

My research focuses on two key challenges in machine learning for large-scale tabular and image datasets: class imbalance learning and semi-supervised learning. I have developed domain-specific architectures for tabular learning, including deep neural networks, autoencoders (AE, VAE), GANs, and Transformer-based models tailored for supervised, self-supervised, and semi-supervised settings. Additionally, I specialize in handling class imbalance in semi-supervised learning, particularly when labeled and unlabeled data follow different distributions, aiming to mitigate bias during model training. I have also developed, fine-tuned, and pretrained models for downstream tasks in both semi-supervised and self-supervised settings, enabling robust and adaptable performance across a variety of real-world applications.

Publications

CAIP2025: LTBoost: Boosting Recall Uniformity for Long-Tailed Image Classification | (Accepted July 2025)

PAKDD 2024: SAWTab: Smoothed Adaptive Weighting for Tabular Data in Semi-Supervised Learning | [Link](#)

ICKG 2022: Progressive Feature Upgrade in Semi-supervised Learning on Tabular Domain | [Link](#)

BodySys 2021: Performance Monitoring for Exercise Movements using Mobile cameras | [Link](#)

MVIP 2015: An efficient run-based method for connected component labeling | [Link](#)

MVIP 2013: Real-time dynamic hand gesture recognition using hidden Markov models | [Link](#)