Behrad Sadeghi

Computer Engeneering Undergarduate Student

+39 351 8261 801 behradsadeghi.gu@gmail.com linkedin.com/in/behradsadeghi github.com/Behradsadeghi

behradsadeghi.github.io

ABOUT ME

- I am a Junior Data Scientist with a strong foundation in data science, machine learning, and deep learning. My passion lies in transforming data into actionable insights, and I have honed skills in Python, SQL, R, and advanced data visualization tools. With experience in data-driven decision-making projects, I am adept at using statistical analysis and machine learning models to derive meaningful outcomes. I am eager to apply my analytical expertise and problem-solving abilities to drive impactful solutions as a **Data Scientist, Data Analyst or Machine Learning developer**.

SKILLS

Programming Languages: Python, R, SQL, NoSQL

ML Frameworks: PyTorch, TensorFlow, Huggingface, Keras, Scikit-learn

Data Science Tools: PySpark, Metabse, Power BI, Tableau, Numpy, Pandas, Matplotlib, Seaborn, Scipy, Excel

Extra Tools and Technologies: Git, Git Lab, Docker, Latex

Operating Systems : Linux, MacOS, Windows

Technical Expertise : Machine Learning, **Deep Learning**, **Graph Neural Network**s, LLMs, **Ai Agents**, **Computer Vision**, Medical imaging

WORK EXPERIENCE

Machine Learning Developer Intern **Feb 2023 – August 2023**

Infinite Modern Technology

∗ Gained proficiency in data processing techniques and tools such as Pandas, Matplotlib, Seaborn, and NumPy. Acquired knowledge in machine learning concepts and algorithms, both supervised and unsupervised. Completed several projects including:
∗ Predicting-Loan-Acceptance —
∗ Predictive-Modeling-of-Car-Prices —

Research Assistant **Feb 2024 – Jan 2025**

University of Guilan

∗ I have worked on various datasets and papers under the supervision of Dr.Mirrooshandel.
∗ Currently, I am focused on a paper titled **Nasal Fracture Detection: A Cross-Attention Based Approach**, which involves a dataset collected by Dr. Mirrooshandel himself that has not been previously explored in this field.

SELECTED PROJECTS

Transaction Fraud Detection Using GNNs and Tabular Models | **Pytorch/GNNs/Transformers**

∗ Developed a comprehensive **fraud detection** system using supervised (**Tabular Transformers, Neural Networks**) and semi-supervised (**Graph Attention Networks, GraphSAGE**) learning models. Conducted **EDA**, feature engineering, and implemented **hybrid loss** for graph-based models with **15% labeled data**, achieving competitive performance. Utilized Python, PyTorch, and data visualization to analyze imbalanced transaction datasets effectively.

FraudRide-Analytics | **Pandas/Matplotlib/Seaborn/Scipy/NumPy**

∗ It's a data analytics project focused on detecting **fraudulent bikers** in ride-sharing services. It leverages statistical analysis and anomaly detection techniques to identify suspicious patterns in ride data, preventing fraud and ensuring fair platform usage.

Pothole Segmentation | **Pytorch/Yolo**

∗ This project develops an advanced deep learning model, **YOLOv9**, for **detecting** and **segmenting** potholes in **images** and **video streams**. Using a custom dataset, the model was fine-tuned with optimized hyperparameters, achieving a **mAP50** of **0.807** and a **Mask mAP50** of **0.825**, highlighting its effectiveness.

Amazon Reviews | **Keras/LLM**

∗ A machine learning model was trained on Amazon Reviews for **sentiment analysis**, with preprocessing steps including **tokenization**, stopword removal, **lemmatization**, and **stemming**. Logistic Regression was used, and the repository includes code for additional models like **BERT** and Simple Neural Networks.

AlzMRI-Net | **Pytorch**

* The AlzMRI-Net project develops a deep learning model to classify MRI scans into **four Alzheimer's disease stages** using a fine-tuned **EfficientNet-V2-L** model with **transfer learning** in PyTorch. Techniques like mixed precision training and gradient accumulation improve performance. The model achieves a **99.19%** test accuracy, underscoring its effectiveness in **Alzheimer's disease classification**.

Paper Summarizer | **Pytorch/LLM**

* Automated tool for fetching and **summarizing** the latest research papers from **PubMed** and **arXiv** using the **BART** large language model. Users can easily select papers and view detailed summaries, making it easier to stay updated with current research.

EDUCATION

University of Milan **Sep 2025 – Now**
MSc in Data Science for Economics and Health *Milan, Italy*

University of Guilan **Sep 2019 – Feb 2024**
B.Sc. in Computer Engineering *Rasht, Iran*

* CGPA: 3.69/4.0 (16.29/20)
* GPA of last year: 4.0/4.0 (18.88/20)

RESEARCH EXPERIENCE

Nasal Fracture Detection: A Cross-Attention Based Approach **In Progress (Feb 2024 - Jan 2025)**

* **Behrad Sadeghi, Dr. Seyed Abolghasem Mirroshandel**
* Under the supervision of Dr. Mirroshandel, I am spearheading a research project aimed at diagnosing nasal fractures utilizing state-of-the-art models, including Vision Transformer (ViT), Caformer, and EfficientNet. This study is particularly novel and challenging due to the use of an original dataset that has not been previously explored in the existing literature. Despite these complexities, our fine-tuned models have already achieved an accuracy rate exceeding 85%. We are currently conducting extensive evaluations by applying various transformer architectures and cutting-edge models to our dataset to rigorously assess and document their performance metrics.

LANGUAGES

English: Overall band score **7.0** in the IELTS test : Reading(8.5), Listening (7.5), Speaking(6.5), Writing (6)
Persian: Native Language

CERTIFICATES

- **Data Analysis with Python - FreeCodeCamp**
- **Deep Learning - HamrahAcademy**
- **Graph Neural Networks - HamrahAcademy**
- **Introduction to Data Engineering - DataCamp**
- **Foundation: Introduction to LangGraph - LangChain Academy**
- **AI Agents in LangGraph - DeepLearning.AI**
- **Multi AI Agent Systems with crewAI - DeepLearning.AI**

TEACHING ASSISTANT EXPERIENCE

Artificial Intelligence | *University of Guilan* **Fall 2022**

* Instructor: Dr. Y. Boreshban
* As a Teaching Assistant, I was responsible for creating assignments, guiding students through projects, and producing informative videos about neural networks, all to foster optimal learning experiences and facilitate students' comprehension.

Algorithm Design | *University of Guilan* **Spring 2023**

* Instructor: Dr. A. Khozaei
* I designed and assessed assignments for students so they were able to implement complex algorithms.

Software Testing | *University of Guilan* **Spring 2023**

* Instructor: Dr. F. Feyzi
* My only responsibility was to assess the students' assignments.