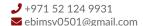
EBRAHIM MOUSAVI

Generative AI Researcher and Engineer



github.com/Ebimsv in https://ebimsv.github.io/

in linkedin.com/in/ebimsvo/ Dubai, UAE

Google Scholar



WORK EXPERIENCE

Al Instructor and Developer

Freelancer / Contract Roles

- ☐ Aug 2024 Now | M Medium (Al Tutorials)
- Authored and published 100+ advanced tutorials on machine learning, deep learning, and NLP on Medium.
- Extensive experience in LLM development, fine-tuning (including architecture customization, instruction tuning, multi-GPU training), parameter-efficient methods like LoRA, tokenizer design, and deploying large-scale models.
- Developed specialized LLMs for code generation and PTM detection in protein sequences, along with a comprehensive building extraction pipeline from data collection to deployment.

Al Team Lead

Resana (in partnership with Rutelia Company, Japan)

Feb 2024 - Aug 2024

Tehran

 I developed and led the implementation of Image Generative AI and worked on LLM-based AI agents for intelligent document processing.

Senior Computer Vision Developer

AlHomeDesign in Vancouver, Canada

Sep 2023 - Feb 2024

Canada, Tehran's office

 Developed and deployed diffusion and vision-language models for real estate, including item removal, virtual staging, and dayto-dusk changes. Improved image synthesis by integrating advanced diffusion models and collaborated with teams to scale Al tools for interior design.

Deep Learning Researcher and Developer Baharan Company & Freelance

☐ Jan 2021 - Aug 2023

Tehran, Iran / Remote

- Deep Learning Developer, focusing on computer vision and NLP (Jan 2021 – Mar 2022).
- Continued independently as a Deep Learning Freelancer, delivering AI solutions for various clients (Apr 2022 Aug. 2023).

Network & Systems Engineer | Linux Expert

Freelance / Contract Roles

Feb 2017 - Mar 2020

Iran

Designed, configured, and maintained secure network infrastructures using Cisco (CCNA-level) and Microsoft systems (Active Directory, DNS, DHCP, Group Policy).

SUMMARY

"Al developer with experience in deep learning, computer vision, and NLP, experienced in publishing peer-reviewed research and mentoring others. Interested in leading innovative projects in LLM research and development."

MOST PROUD OF

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Publishing Peer-Reviewed Research in Al and Education

Co-authored Q1 journal papers on AI.

(1)

Educating Future AI Engineers

Taught and mentored hundreds of students across five semesters as a Machine Learning and Deep Learning instructor and TA — sharing knowledge via hands-on GitHub repositories and detailed Medium tutorials.

STRENGTHS

Hard-working Detail-Oriented		
Team Player Instructor & Mentor		
Python Machine Learning Deep Learning		
Generative AI LLMs MCP NLP		
Computer Vision Diffusion Models		
Al Agents LangChain & LangGraph		
AutoGen & CrewAl Transformers		
LoRA & Fine-Tuning Multi-GPU Training		

LANGUAGES

Persian	••••
English (IELTS 6.0 - Duolingo 110)	••••
Turkish	••••

TEACHING & MENTORING

Teaching Assistant in Machine Learning course Tarbiat Modares University

- Mar 2020 Jul 2024
- Tehran, Iran
- Taught and assisted in Machine Learning and Neural Networks courses for five semesters, demonstrating strong communication and pedagogical skills.
- Designed and teach a comprehensive Machine Learning course using Python, scikit-learn, and PyTorch.
- Created and maintained an open-source GitHub repository with lectures, code notebooks, and assignments.

Research Assistant

LBB Laboratory, University of Tehran

- May 2024 Jan 2025
- Tehran, Iran
- Supervised by Prof. Ali Masoudi-Nejad.
- Conducting research on systems biology and bioinformatics, including data analysis and model development.

Al & Machine Learning Writer M

- Authored a series of tutorials on machine learning, deep learning, and Python programming aimed at simplifying complex concepts for a broad audience.
- Covered practical topics such as model training, evaluation, and neural network design, with hands-on code examples.

SELECTED RESEARCH PROJECTS

Large Language Model with PyTorch 🦪

- Implemented a custom LLM from scratch using PyTorch, focusing on training efficiency and text generation, showcasing strong foundational understanding of LLM architectures.
- Designed the architecture using Transformer blocks and integrated tokenization, positional encoding, and attention mechanisms.

Protein Language Model 🕠

- Developed a Transformer-based model to learn embeddings from protein sequences, inspired by NLP techniques, demonstrating interdisciplinary research capabilities.
- Focused on capturing structural and functional motifs in proteins to enhance downstream tasks like classification and property prediction, highlighting problem-solving and application-oriented research.

Facial Age Estimation (7)

- Prediction of human age from facial images with Transformers.
- Preprocessed datasets, performed data augmentation, and finetuned the model to improve prediction accuracy.

EDUCATION

Master of science in IT Tarbiat Modares University, Tehran, Iran

Sept 2018 - Sep 2021

Thesis title: Designing a fashion recommendation system

B.Sc. in Software Engineering Islamic Azad University, Isfahan, Iran

Feb 2009 - Feb 2015

Thesis title: Implementation of a pyramid security system with firewall for computer networks

PUBLICATIONS

Q1 Journal Articles

- ATTENDEE: an AffecTive Tutoring system based on facial EmotioN recognition and heaD posE Estimation to personalize e-learning environment Journal: Education and Information Technologies (Springer), 2023
- FELA-DNN framework Journal: Soil Dynamics and Earthquake Engineering (Elsevier), 2023

arXiv Preprint

 How Self-Supervised Learning Can be Used for Fine-Grained Head Pose Estimation? arXiv Preprint, 2021

REFEREES

Prof. of IT Gholam Ali Montazer

- @ Tarbiat Modares University, Tehran, Iran
- Montazer@modares.ac.ir
- Google Scholar

Prof. of Bioinformatics Ali Masoudi-Nejad

- @ University of Tehran
- Amasoudin@ut.ac.ir
- Google Scholar in LinkedIn