

Milad Bagheri

Biotechnology Puzzler / Project Manager / Senior Pipeline Architect
/ Full-Stack Bioinformatics Developer / Research Technologist / AI-Driven Therapeutics

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Google Scholar DockerHub Github



EDUCATION

- Sep 2014 - Jun 2018

BSC in Biology
Golestan University Gorgan-Iran
- Aug 2018 - Jul 2020

MSC in Biochemistry
Shahrekord University Shahrekord-Iran
Thesis: Development of a Novel Bioinformatics Pipeline for Multi-Epitope Vaccine Design
- Oct 2020 - Sep 2023

Ph.D. in Biochemistry
Shahrekord University Shahrekord-Iran
Thesis: Construction of a Custom Antibody Library for Therapeutic Targeting via Computational Design

WORK EXPERIENCE

- Nov 2023 – Feb 2025

Biotechnology Project Manager / Application Developer
Dubai Biotechnology Labs (Swedish Company) Dubai, UAE
 - Led the development of bioinformatics pipelines, overseeing both AWS backend infrastructure and workflow/wireframe design.
 - Played a key role in building advanced platforms for personalized medicine, genomics, and therapeutic design.
 - Facilitated effective collaboration across backend, UI/UX, and front-end teams to ensure smooth project execution and integration.
 - Gained significant technical and leadership experience in a fast-paced, interdisciplinary environment.
- 2020 – Feb 2022

Assistant
Saadat Abad Medical Service Center Tehran, Iran
 - Provided technical support for patient care and managed medical records.
- 2019-2020

Research Assistant
Shariati Hospital, Tehran University of Medical Sciences Tehran, Iran
 - Assisted in clinical research and supported data collection, analysis, and interpretation.
- 2014-2024

Teaching Assistant
Freelancer
 - Supported research and teaching efforts in bioinformatics, molecular biology, and computational biology across diverse academic institutions and teams.
 - Mentored students and early-career researchers in research methodology, data analysis, and scientific writing.
 - Designed learning materials and conducted workshops on genomics, vaccine design, machine learning in medicine, and scientific communication.
 - Collaborated remotely with international researchers, contributing to interdisciplinary and cross-cultural academic projects.

SKILLS

Molecular Biology

- Developed a strong interest in biology in 2014, driven by curiosity about the mechanisms underlying life processes.
- Engaged in self-directed learning through scientific literature; key texts included Introduction to Protein Structure, Function, and Motion and Guyton's Physiology.
- Actively supported M.Sc. and Ph.D. students with bioinformatics tools and pipelines, gaining hands-on experience in research environments.
- Laboratory experience spans genetics, biochemistry, cell biology, physiology, chemistry, and physics.
- Consistently prepared for laboratory work by studying experimental protocols and gaining a deep understanding of methods and instrumentation.

Bioinformatics

Programming Languages	Python, R, C++, SPSS
ML and Data Analytics	PyTorch, Keras, TensorFlow, Scikit-learn, NumPy, Pandas, Hugging Face
Cheminformatics	RDKit, Schrödinger, GROMACS, Gaussian, OpenMM
Miscellaneous	Linux, Shell (Bash/Zsh), LaTeX (Overleaf/R Markdown), Microsoft Office, VSCode
Visualization	Matplotlib, Seaborn, Plotly, ggplot2, VMD, PyMOL, Blender, Unreal Engine, Adobe Photoshop
DevOps	AWS, Azure, Git, Docker, Singularity, tmux
Molecular Docking	AutoDock, Vina, GNINA, DiffDock, Smina, MOE, GOLD, ZDOCK, HDOCK, EpiDock
AI-Powered Biomedical	Flowise, Dify, LLM, Chatflow, AI Agent
Genomics & Multi-Omics Analysis	FastQC, fastp, BWA-MEM, Bowtie2 (GRCh38/hg38), SAMtools, GATK, Strelka, FreeBayes, VarScan, Ensembl VEP, ANNOVAR, GWAS, DNA Methylation (BS-seq), Chromatin Accessibility (ATAC-seq), ChIP-seq, Bulk RNA-seq, (WGS/WES)
Microbiome & Metagenomics	QIIME2, DADA2, MetaPhlAn 4, Snaq (Snakemake), SILVA, Greengenes, ASV/OTU Tables, PCoA, Taxonomy Trees, Strain-Level Prediction
UX Design	Figma, User Flow Design, Dashboard Simplification
Soft Skills	Communication, Teamwork, Interdisciplinary Research, Adaptability, Problem-Solving
Language Skills	Persian (native), English (C1), Turkish (B1)

PROFESSIONAL REFERENCES

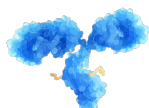
Two prominent figures in the field of bioinformatics who can vouch for my expertise are:

Farzin Sohrabi

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Email: farzin.sohraby@tu-berlin.de

Amir Amanzadi

Mobile: +46 73 489 34 35
Email: amir.amanzadi@gmail.com



I am deeply committed to scientific research and continuous learning. I regularly review scientific manuscripts and stay engaged with newly published work, which helps me remain current, think critically, and stay motivated in my own research projects.