# FAEZEH KHAZAEE

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## OBJECTIVE

Machine Learning Engineer and Data Scientist with strong experience in deep learning, generative AI, large-scale data analysis, and computational biology. Seeking full-time roles in Applied Machine Learning, Data Engineering, Data Science, or Computational Biology.

## EDUCATION

**University of California, Davis** — Expected Jun 2026
M.Sc. in Computer Science — GPA: 4.0

**University of Tehran** — 2020
M.Sc. in Information Technology Engineering — GPA: 18.5/20

**Sharif University of Technology** — 2015
B.Sc. in Information Technology Engineering — GPA: 17.25/20

## SKILLS

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|---|---|
| **Programming** | Python, SQL, R, MATLAB, C, JavaScript |
| **Machine Learning** | PyTorch, TensorFlow, Scikit-learn, NumPy, Pandas |
| **Generative AI** | Transformers, Self-supervised learning, Representation learning |
| **Computational Biology** | Scanpy, Single-cell RNA-seq, Genomics |
| **Systems & Tools** | Git, SLURM, AWS, MLflow, Azure DevOps, Power BI |

## EXPERIENCE

**ML Research Engineer — Quon Lab, UC Davis** — Oct 2023 – Present
*Machine Learning & Computational Biology*

- Developed **CELECTION** interpretable multiple-instance learning models for predicting phenotypes from single-cell RNA-seq data.
- Built self-supervised transformer-based model **ProMod** on promoter DNA sequences across vertebrates to predict gene expression.
- Developed **Varformer**, a set-based transformer for rare variant disease prediction using regulatory and gene-context features.

**Graduate Research Assistant — Robotics & Machine Intelligence Lab** — Oct 2020 – Aug 2023
*Machine Learning & Computer Vision*

- Developed a transformer-based multi-hop co-attention network for visual question answering (VQA).
- Built pseudo-human non-player agents with vision-based perception and decision-making constraints.

**Freelance Developer / Data Scientist** — Nov 2020 – May 2023

- Developed data-driven applications and ML pipelines for real estate and e-commerce clients.
- Built recommendation systems and analytics dashboards using SQL, Python, and deep learning models.

**Teaching Assistant — University of Tehran / Sharif University of Technology** — Oct 2018 – May 2023

- TA for Neural Networks, Multimedia Systems, Information Retrieval, and Special Topics in CS.

## PUBLICATIONS

**CELLECTION: Single-Cell Phenotype Modeling**
Interpretable deep learning framework for predicting emergent phenotypes from single-cell populations. (Preprint in February)

**Varformer: Modeling Somatic Mosaicism in Brain Disorders**
Transformer-based model for disease prediction from sets of rare variants with interpretability analysis. (Preprint in February)

## HONORS & AWARDS

- Ranked 7th nationwide in MSc entrance exam (2020)
- Top 1% in national undergraduate entrance exam (2015)