

# Aarash Feizi

✉ aarash.feizi@mail.mcgill.ca - aarash.feizi@mila.quebec  
🌐 aarashfeizi.github.io 📞 +1 438 530 4649

## INTERESTS

- Multimodal Learning
- Representation Learning
- Self-Supervised Learning
- OOD Robustness

## EDUCATION

### MCGILL UNIVERSITY

PH.D. IN COMPUTER

SCIENCE

2019 - present | Montréal, Canada

GPA: 4/4

### SHARIF UNIVERSITY OF TECH.

B.SC. IN SOFTWARE

ENGINEERING

2014 - 2019 | Tehran, Iran

GPA: 18.87/20

## HONORS

Received the **Fonds de recherche du Québec – Nature et technologies (FRQNT)** doctoral scholarship 2022

Received **Graduate Research Enhancement and Travel (GREAT)** Award 2022

Ranked 3<sup>rd</sup> in **DataJam Against Exploitation Canada** competition 2021

Received **School of Computer Science Scholarship** from Mila, Quebec AI Institute 2019

Ranked 100<sup>th</sup> out of over 220,000 students in the **National University Entrance Exam** 2014

## SKILLS

### PROGRAMMING

Python • R • Java • Matlab •  
L<sup>A</sup>T<sub>E</sub>X

### FRAMEWORKS

HuggingFace • PyTorch •  
Lightning • TensorFlow • Keras  
• NetworkX

## WORK EXPERIENCE

### SERVICENOW | VISITING RESEARCHER

2024-Present | Montreal, Canada

- Researching large vision-language models (VLMs) for real-world applications in web agents and web understanding.
- Developing benchmarks to evaluate the reliability of VLMs.

### RECURSION | MACHINE LEARNING RESEARCH INTERN

Summer-Fall 2023 | Montreal, Canada

- Designed models to learn gene representations for data-centric drug discovery.
- Applied multi-modal models with self-supervised learning techniques to integrate sequential and visual modalities for gene-perturbation analysis.

### UNIVERSITY OF TORONTO | RESEARCH ASSISTANT

Summer 2018 | Toronto, Canada

- Worked in a group under the supervision of Professor Plataniotis.
- Project goal was to improve the robustness of convolutional neural networks (CNNs) against adversarial attacks.

## PROJECTS AND PAPERS

### PAIRBENCH: A SYSTEMATIC FRAMEWORK FOR SELECTING RELIABLE JUDGE VLMS

Spring 2025

- Developed a framework for evaluating Vision-Language Models (VLMs) as similarity kernels using four key metrics.
- Demonstrated the importance of thorough assessment before adopting VLMs for evaluation tasks.

### GUIDED POSITIVE SAMPLING FOR SELF-SUPERVISED LEARNING (GPS-SSL)

Winter 2024

- Introduced a novel positive sampling strategy to reduce reliance on handcrafted augmentations in SSL models.
- Enabled SSL models to perform comparably or better than augmentation-heavy methods, improving real-world dataset adaptability.

### BIGDOCS-7.5M: A LARGE-SCALE DATASET FOR DOCUMENT UNDERSTANDING

Fall 2024

- Created an open-access dataset with 7.5 million multimodal documents for document understanding tasks.
- Demonstrated that models trained on BigDocs-Bench improved document reasoning performance by up to 25.8% over GPT-4o.

### FAIRLORA: BIAS MITIGATION IN VISION MODELS WITH FAIRNESS-DRIVEN LOW-RANK ADAPTATION

Fall 2024

- Developed FairLoRA, a fairness-specific regularizer for LoRA that minimizes performance disparities across data subgroups.
- Achieved comparable or better fairness performance than full fine-tuning while maintaining efficiency across models and datasets.