

# Fatemeh Ghezloo

Ph.D. Candidate at University of Washington

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## Education

### University of Washington

Seattle, WA, USA

Ph.D. in Computer Science and Engineering

September 2019 - June 2024

- Multimodal Representation Learning, Computer Vision, Deep Learning, and Machine Learning
- Advised by Prof. Linda Shapiro

### Amirkabir University of Technology

Tehran, Iran

B.Sc. in Computer Engineering

September 2014 - October 2018

- Thesis topic: “Design and development of a deep facial expression recognition system”, advised by Prof. Reza Safabakhsh

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## Experiences

### Graduate Research Assistant

September 2019 - Present

University of Washington

Seattle, WA, USA

- Developed largest vision-language dataset, specialized chatbots, fine-tuned and instruction-tuned models for histopathology tasks like classification and cross-modal retrieval.
- Improved regions of interest detection in medical images by developing deep models, leveraging autoencoders and pre-trained models.
- Performed statistical analysis to investigate the correlation between pathologists’ viewing behaviors and diagnostic accuracy.

### AI Research Intern

June - September 2022

Zippin

San Francisco, CA, USA

- Attained a 76% accuracy in the cart verification process of a checkout-free store platform, significantly minimizing reliance on human in the loop requests.
- Implemented and optimized advanced models like MoViNets and EfficientNet, achieving improved feature extraction.
- Curated a large-scale dataset from Zippin stores’ database, ensuring the reliability and precision of data used in model’s development.

### Research Assistant

June 2017 - June 2019

Brain Engineering Center, IPM

Tehran, Iran

- Developed and designed a Multiple Target Tracking task to improve object tracking algorithms.

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## Selected Publications

W. O. Ikezogwo\*, Mehmet S. Seyfioglu\*, **Fatemeh Ghezloo\***, et al. “Quilt-1M: One Million Image-Text Pairs for Histopathology.” Oral Accept. NeurIPS (2023)

**Fatemeh Ghezloo**, et al. “An analysis of pathologists’ viewing processes as they diagnose whole slide digital images.” Journal of Pathology Informatics (2022)

Shiva Kamkar, **Fatemeh Ghezloo**, et al. “Multiple-target tracking in human and machine vision.” PLoS computational biology (2020)

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## Awards

### Microsoft Accelerate Foundation Models Research Program

September 2023

Granted \$20,000 USD credit in Azure

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## Skills

**Programming skills:** Python, C, C++, Java, SQL, HTML/CSS

**Machine Learning Tools:** PyTorch, OpenCV, scikit-learn, NumPy, pandas, matplotlib

**Developer Tools:** Jupyter Notebooks, Git, Google Cloud Platform, VS Code, Azure