

AINAZ EFTEKHAR

✉ ainazeft@cs.washington.edu 🏠 ainaz99.github.io

EDUCATION

University of Washington (UW) Ph.D. in Computer Science and Engineering • GPA: 4.0/4.0, Advisor: Prof. Ali Farhadi and Prof. Ranjay Krishna.	Seattle, WA 09/2022 - present
Ecole Polytechnique Federale de Lausanne (EPFL) Visiting Student Researcher in VILAB • Advisor: Prof. Amir Zamir	Lausanne, Switzerland 09/2021 - 08/2022
Sharif University of Technology B.S. in Computer Engineering • GPA: 19.22/20	Tehran, Iran 09/2017 - 08/2022

PUBLICATIONS

Selective Visual Representations Improve Convergence and Generalization for Embodied-AI <i>Ainaz Eftekhara*, Kuo-Hao Zeng*, Jiafei Duan, Ali Farhadi, Ani Kembhavi, Ranjay Krishna.</i>	In Submission, 2023
Omnidata: A Scalable Pipeline for Making Multi-Task Mid-Level Vision Datasets from 3D Scans <i>Ainaz Eftekhara*, Alexander Sax*, Jitendra Malik, Amir Zamir.</i>	ICCV 2021
Puzzle-AE: Novelty Detection in Images through Solving Puzzles <i>Mohammadreza Salehi, Ainaz Eftekhara*, Niousha Sadjadi*, Mohammad Hossein Rohban, Hamid R. Rabiee</i>	Arxiv, 2020

WORK EXPERIENCE

Allen Institute for Artificial Intelligence (AI2) Research Intern, Supervisors: <i>Ani Kembhavi, Ranjay Krishna</i> • Team: Perceptual Reasoning and Interaction Research (PRIOR) • Project: Selective Visual Representations for Embodied-AI (<i>In Submission</i>)	Seattle, WA 06/2023 – 09/2023
Ecole Polytechnique Federale de Lausanne (EPFL) Research Intern, Supervisor: <i>Amir Zamir</i> • Visual Intelligence and Learning Lab (VILAB) • Project: Omnidata: A Pipeline for Making Multi-Task Mid-Level Vision Datasets (<i>accepted at ICCV 2021</i>)	Lausanne, Switzerland 09/2020 – 08/2022
Sharif University of Technology Research Assistant, <i>Mohammad Hossein Rohban</i> • Project: Self-Supervised Approaches for Anomaly/Novelty Detection in Images and Videos	Tehran, Iran 09/2019 – 09/2020
Indian Institute of Technology (IIT) Research Intern, Supervisors: <i>Abir Das, Pabitra Mitra</i> • Project: Reducing effects of severe dataset imbalance using CycleGANs	Kharagpur, India 07/2019-09/2019

PROJECTS AND RESEARCH

Selective Visual Representations for Embodied-AI (Allen Institute for AI) <i>A parameter-efficient approach to filter visual stimuli for Embodied-AI tasks (inspired by selective attention in humans).</i>	04/2023 – 10/2023
Omnidata: A Pipeline for Making Multi-Task Mid-Level Vision Datasets (EPFL) <i>A pipeline to generate “steerable” multi-task vision datasets by parametrically sampling and rendering 3D scans</i>	09/2020 – 10/2021
Anomaly Detection in Images and Videos (Sharif University of Technology) <i>Self-supervised approaches and adversarial robust training for anomaly detection in images and videos.</i>	09/2019 – 09/2020
Reducing the Effect of Severe Dataset Imbalance in Image Classification (IIT Kharagpur) <i>Reducing the effect of dataset imbalance by training an end-to-end CycleGAN-Classifier architecture</i>	07/2019 – 09/2019

TEACHING EXPERIENCE

University of Washington

Deep Learning

2024

Sharif University of Technology

Artificial Intelligence, Discrete Structures, Data Structures and Algorithms, Advanced Programming

2018-2020

HONORS AND AWARDS

EPFL Summer Research Fellowship, Ecole polytechnique federale de Lausanne

2021

Top 5% Academic Ranking, Sharif University of Technology

2020

Ranked 92th in Iranian Nationwide University Entrance Exam (Among +300,000),

2017

Bronze Medal, Iranian National Math Olympiad

2015, 1016

Gold Medal in the 9th International Mathematics Contest, IMC (Singapore) [certificate]

2013

SKILLS

Programming: Python, Java, C/C++, LaTeX

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

Distribution and Deployment Tools: Kubernetes, Docker, Github's CI/CD

Languages: Persian (native), English (advanced, TOEFL score:109), French (Basic)

RELEVANT COURSEWORK

University of Washington

- *Deep Robotic Learning (CSE 599 G), Deep Learning (CSE 493G1), Computational Neuroscience (CSE 528 A)*

Sharif University of Technology

- *Digital Image Processing (graduate), Artificial Intelligence, Machine Learning, Signals and Systems, Advanced Information Retrieval, Linear Algebra, Probability and Statistics, Design of Algorithms, Data Structures*

Online MOOCs

- *CS231n: Convolutional Neural Networks for Visual Recognition by Stanford, Deep Learning Specialization by deeplearning.ai, Machine Learning by Stanford-Online.*

Machine Vision and Learning Winter School

- *Brain Engineering Center and Cognitive Science School, IPM, Iran [certificate]*

ACADEMIC SERVICES

Student Volunteer at ICCV 2023

10/2023

Helped with different logistic tasks at the conference [certificate]

Member of Executive Team in Sharif Artificial Intelligence Challenge

03/2018

Sharif University of Technology

Member of Executive Team in the ACM International Collegiate Programming Contest

12/2017

Sharif University of Technology