Mohammad Reza Taesiri

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EDUCATION

University of Alberta, Edmonton, Alberta, Canada
- Ph.D. in Software Engineering and Intelligent Systems — Jun 2021 – Present

Sharif University of Technology, Tehran, Tehran, Iran
- M.Sc. in Computer Software Engineering — Sep 2015 – Sep 2017

Amirkabir University of Technology, Tehran, Tehran, Iran
- B.Sc. in Pure Mathematics — Sep 2009 – Jun 2015

RESEARCH EXPERIENCE

La Forge, Ubisoft Montreal
- Research and Development Intern — Aug 2022 – Dec 2022
  - Supervisor: Dr. Sarra Habchi
  - Focus: Robustness of Foundation Models, Image and Video Retrieval

ASGAARD Lab, University of Alberta
- Graduate Research Assistant — Sep 2021 – Present
  - Supervisor: Prof. Cor-Paul Bezemer
  - Focus: Foundation Models for Video Games, Robustness

Nguyen Lab, Auburn University
- Guest Researcher — Mar 2021 – Present
  - Supervisor: Prof. Anh Nguyen
  - Focus: Robust and Explainable Machine Learning

PUBLICATIONS

CONFERENCES

[1] Giang Nguyen*, Mohammad Reza Taesiri* and Anh Nguyen (* Denotes Equal Contribution) – "Visual correspondence-based explanations improve AI robustness and human-AI team accuracy." in *Thirty-sixth Annual Conference on Neural Information Processing Systems (NeurIPS 2022)*

[2] Finlay Macklon, Mohammad Reza Taesiri, Markos Viggiato, Stefan Antoszko, Natalia Romanova, Dale Paas and Cor-Paul Bezemer – "Automatically Detecting Visual Bugs in HTML5 <canvas> Games." in *International Conference on Automated Software Engineering (ASE 2022)*

[3] Mohammad Reza Taesiri, Finlay Macklon and Cor-Paul Bezemer – "CLIP meets GamePhysics: Towards bug identification in gameplay videos using zero-shot transfer learning." in *The Mining Software Repositories conference (MSR 2022)*

PREPRINTS

[4] Mohammad Reza Taesiri, Finlay Macklon, Yihe Wang, Hengshuo Shen and Cor-Paul Bezemer – "Large Language Models are Pretty Good Zero-Shot Video Game Bug Detectors." in *Arxiv Preprint*

[5] MohammadAmin Fazli*, Ali Owfi* and Mohammad Reza Taesiri* (* Denotes Equal Contribution) – "Under the Skin of Foundation NFT Auctions." in *Arxiv Preprint*

JOURNALS

[6] Mohammad Reza Taesiri, Moslem Habibi and MohammadAmin Fazli – "A Video Game Testing Method Utilizing Deep Learning" in *Journal on Computer Science and Engineering (JCSE 2021)*

AWARDS & SCHOLARSHIPS

- Charles E. Gavin Fellowship, Auburn University — 2022
- Graduate Research Assistant, University of Alberta — 2021
- Ranked 10th, National entrance exam in Software Engineering, Iran — 2015
- Ranked 11th, National entrance exam in Algorithms and Theory of Computation, Iran — 2015

PROJECTS & DEMOS & DATASETS	**Intelligent Image Captioner**, Hugging Face Spaces

- Built an image captioner using Detic and chatGPT   Dec 2022

The Game Bug Description Dataset, Hugging Face Datasets
- A dataset of textual descriptions of video game bugs   Aug 2022

CLIP Meets GamePhysics, Hugging Face Spaces
- Built a CLIP-based video retrieval system for video games.   Mar 2022

The GamePhysics Dataset, Hugging Face Datasets
- A dataset of video game bugs   Jan 2022

OTHER WORK EXPERIENCE

3-Dish, Karaj, Tehran, Iran
- Co-Founder   2019 – 2021
  - Your favorite dish with the same look and taste but in the Metaverse.

Fanafzar Sharif Game Studio, Tehran, Tehran, Iran
- Summer Intern,   Jun 2014 – Sep 2014
  - Worked on in-game level editors for mobile devices and created a proof of concept in the Unity game engine.

TEACHING EXPERIENCE

Sharif University, Tehran, Tehran, Iran
- Head Teaching Assistant   Jan 2016 – Jun 2016
  - Simulation Course, Taught by Prof. Fazli

CERTIFICATES & ONLINE COURSES
- Deep Reinforcement Learning Nanodegree, Udacity   2020
- Reinforcement Learning Specialization, Coursera, University of Alberta   2020
- Computational Neuroscience, Coursera, University of Washington   2020
- Deep Learning Specialization, Coursera, DeepLearning.AI   2018
- Image and video processing, Coursera, Duke University   2014
- Heterogeneous Parallel Programming, Coursera, University of Illinois Urbana-Champaign   2014
- Programming Languages, University of Washington   2014

SKILLS

Machine Learning: PyTorch, Tensorflow, Tensorflow.js, Keras, Numpy, JAX
Programming: Python, C#, Java, C/C++, Swift, Objective-C, Scheme, Racket, ML, CUDA
Other Technologies: Docker and Kubernetes, Node, MongoDB, Neo4j, Wolfram Mathematica, Solidity
Game Engines: Unity, Unreal Engine

HOBBIES

Photogrammetry, Digital photography, Hiking

REFERENCES

- **Professor Anh Nguyen**
  Assistant Professor, Auburn University
  Auburn, Alabama, USA
  anhnguyen@auburn.edu

- **Professor Cor-Paul Bezemer**
  Assistant Professor, University of Alberta
  Edmonton, Alberta, Canada
  bezemer@ualberta.ca

- **Professor MohammadAmin Fazli**
  Assistant Professor, Sharif University of Technology
  Tehran, Tehran, Iran
  fazli@sharif.edu

[*CV compiled on 2022-12-18*]