

1515, Bissonnet St.,
Houston, TX 77005
(+1) 914-912-0580

Moayed Haji Ali

Machine Learning Engineer

Email: mh155@rice.edu
Portfolio: moayedha.com
linkedin.com/in/moayedhajiali

EDUCATION

Rice University

PhD in Computer Science

Houston, TX

Aug 2023 - June 2027 (expected)

Koç University

Bachelor in Computer Engineering, CGPA: 3.96/4.0, Major GPA: 3.98/4.0

Istanbul, Turkey

Jan 2019 - June 2023

- Ranked 3rd in the Computer Science Department
- Full scholarship merit and need based from the Al Ghurair Foundation for Education (AGFE)

AlSaade High School, CGPA: 94.1

Damascus, Syria; 2017-2018

PUBLICATIONS

- [1] **M. Haji-Ali**, G. Balakrishnan, V. Ordonez "Beyond Square: Extending Pre-trained Diffusion Models for Arbitrary Aspect Ratios". Under Submission
- [2] **M. Haji-Ali**, A. Bond, T. Birdal, D. Ceylan, L. Karacan, E. Erdem, and A. Erdem "VidStyleODE: Disentangled Video Editing via StyleGAN and NeuralODEs". Accepted at **ICCV 2023**
- [3] Y. H. Nazarabadi, **M. Haji-Ali**, and N. Nayal "Opera: Scalable Simulator for Distributed Systems". [Demo Paper]. Accepted at **IEEE INFOCOMP 2021**.

RELEVANT COURSEWORK

- Autonomous Driving
- Advances in Deep learning
- Deep Unsupervised Learning
- Deep Learning and Computer Vision
- Introduction to Machine Learning
- Natural Language Processing
- Database Management
- Algorithms and Complexity
- Software Engineering Design

AWARDS

Seven times recipient of the Vehbi Koç Scholar Award given for outstanding classwork performance 2019 - 2022
Syrian Youth Empowerment grant; **1000 USD** 2022
Best project of the year award in the "Software Engineering Design" course 2020
Flight and accommodation grant for Best short talk video at AGFE Summit 2019 2019
Honorable mention in Asia-Pacific Olympiad of Informatics 2016

EXPERIENCE

Remote Machine Learning Engineer

CareX

Feb 2021 - Jan 2022, April 2023 - Aug 2023

California, USA

- Worked on the development of a blood pressure estimation model from face videos using Pytorch
- Implemented a Pytorch and Tensorflow framework for building, training, and visualizing deep learning models
- Contributed to HRV estimation model from fingertip videos technology, which was deployed in CareX's SDK

Computer Vision Research Intern

Koc University and Is Bank Artificial Intelligence Center (KUIS-AI Center)

Aug 2021 - July 2023

Istanbul, Turkey

- Leading an ongoing project on unsupervised disentangled image representation using multimodal neural networks
- Lead a research project on video modeling and manipulation using StyleGAN2 and Latent ODEs.
- Implemented using Pytorch a baseline for text-guided image manipulation based on CLIP and TokenGAN
- Improved upon a recent variational autoencoder-based architecture (VQGAN) using language supervision

Programming Tutor

Hub21

July 2021 - June 2023

Istanbul, Turkey

- Delivered +200 hours of private tutoring in programming using Python, JAVA, and C++

Remote AI Researcher

King Abdullah University of Science and Technology

Aug 2022 - Sep 2022

Thuwal, Saudi Arabia

- Conducted and summarized an extensive literature review on text-guided 3D generation

Undergraduate Research Intern
Intelligence User Interface Lab (IUI)

June 2020 - June 2021
Istanbul, Turkey

- Designed and implemented using Tensorflow an intelligent feedback system for sketch answers to school questions.
- Technologies included object-level segmentation, image registration, non-smooth function optimizations, prototype-based object recognition, and planer graph morphing.

Undergraduate Research Intern

Distributed Systems and Reliable Networks Research Laboratory (DISNET)

June 2019 - Oct 2019
Istanbul, Turkey

- Implemented a distributed computer network simulator using Java that was published as a demo paper at IEEE INFOCOM 2021 conference

TEACHING EXPERIENCE

Deep Unsupervised Learning (Combined Graduate/Undergraduate Course)

Feb 2022 - June 2022

- Prepared an assignment on Diffusion Models and contributed to grading the course assignments
- Assisted students with their course projects and held weekly office hours

Advanced programming in java (Undergraduate Course)

Sep 2020 - Jan 2021

- Conducted weekly lab sessions and graded students' assignments

Koc University Office of Learning and Teaching (KOLT)

Jan 2020 - May 2020

- Held office hours, review sessions, and proctored exams for the "Introduction to Programming" course

TECHNICAL PROJECTS

Coolingo

Spring 2022

An Android bot for teaching children English interactively

- Developed a video chat-bot that combines several SOTA models effectively: BlenderBot 2.0, Google T5, MakeltTalk, FastSpeech2.0, and GPT3
- Deployed AI models on AWS lambda, EC2 instance, and a local server.

Video Implicit Representation

Spring 2021

Representing videos' temporal dimension as an implicit function parameterized by a transformer architecture

- Replicated VideoGPT implementation using Pytorch and implemented a novel network extension.

SKILLS

Programming Languages Python, Java, C++, Julia, MYSQL, HTML, CSS, and React

Technologies Git, L^AT_EX, Android Development, Web development, restful API, AWS, and Docker

COMPETITIONS

Huawei Koç university mobile development competition; ranked 1 st	2020
Inzva online programming competition; ranked 5 th	2020
Startup Roadshow 2019 Istanbul; ranked 1 st	2019
LEAP KWorks Accelerator Startup Competition; ranked 2 nd	2019
IEEEExtreme Programming Contest; ranked 2 nd in Turkey	2019
Turkish Programming Contest; ranked 2 nd	2019
Damascus ACM College Programming Contest; ranked 1 st	2015 & 2016

EXTRA-CURRICULAR ACTIVITIES

Co-founder of Yders.com

2019 - 2021

- Co-founded Yders, a platform that empowers university students and connects them with K-12 students to assist them with their studies
- Represented Yders in Startup Roadshow finals in Amman, Jordan

Team member of the Syrian Olympiad Team Of Informatics (SOI)

2015 - 2017

- Attended three two-month long programming bootcamps
- Represented the Syrian team in the Asia-Pacific Informatics Olympiad