KAMYAB AZIZI

CONTACT

EMAIL: kamiabazizi75@yahoo.com (kamiabazizi75@aut.ac.ir)

HomePage: https://kamyabazizi.github.io

GitHub: https://github.com/kamyabazizi

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CURRICULUM VITAE

INTERESTS:

Machine Learning
Deep Learning
Signal Processing
Embedded Systems
Computer Vision
HW/SW co-design

EDUCATION:

Master study at Amirkabir University of Technology-Electrical and Electronic engineering (Tehran Polytechnic)
Thesis Title: Transfer learning in pruned deep neural networks based on the lottery ticket hypothesis
Supervisor: Dr. Hassan Taheri
2020-2022 GPA 17.25/20 (3.77/4 GPA)

BSc at Amirkabir University of Technology-Electrical and Electronic Engineering (Tehran Polytechnic)
Thesis Title: Image compression using hybrid methods based on digital image processing and linear algebra
Supervisor: Dr. Hassan Taheri
2015 -2020 GPA 16.07/20 (3.2/4 GPA)

HOBBIES:

Football
Movies
Reading Books
Swimming

EXPERIENCE:

Autonomous Driving Algorithm Engineer at Software Motion Co.
Working on ADAS function based on AUTOSAR
Since Apr. 2023

Research Assistant at AUT
Amirkabir University of Technology-Electrical and Electronic Engineering (Tehran Polytechnic) – (Oct. 2020-Dec. 2022)

Volunteer Student Committee at the 5th International Conference on Robotics and Mechatronics (ICROM)
Robotic Society of Iran (RSI) – Oct 2017

Electronics Engineer – Internship at TOOBAL Engeering Co.
Working on Programmable Logic Device (PLD) – Summer 2017

SKILLS:

Programming Skills:
- Python Programming Language
- MATLAB & SIMULINK
- VHDL Programming-FPGA
- C/C++
- SQL

Knowledge and Theoretical Skills:
- AI-Machine Learning-Deep Learning
- Image-Signal-Speech processing
- Pattern Recognition-Computer Vision
- Logic Circuits and Computer Architecture

Tools and Technologies:
- AVR (Codevision) & ARM (Keil)
- Microprocessors and assembly language
- Linux
- LaTex
- ROS

Frameworks:
- Tensorflow and Keras
- Pytorch
- Pyspark
- NumPy and Pandas

LANGUAGES:

» English
Professional working proficiency

» German
Elementary proficiency

» Kurdish
Native or bilingual proficiency

» Persian
Native or bilingual proficiency

SELECTED PROJECTS:

Course Projects (EE Dept. of AUT):

2024	L4 Auto-Driving Logistics Vehicle *Integrates multiple advanced technologies and real-time environmental data acquisition for safe navigation*	C/C++, ROS, MATLAB
2022	Deep Learning [Dr. Faez] *Audio-based drone or Unmanned Aerial Vehicle detection and identification using Deep Learning*	Keras
2021	Computer Vision [Dr. Faez] *Map to Aerial Image Translation*	Pytorch
2021	Neural Networks [Dr. Faez] *Music genres classification task with Convolutional Neural Networks*	Keras

2021	Big Data Analytics [Dr. Sharifian] *Malware classification in BIG 2015 dataset for Microsoft challenge with the decision tree and Random forest classifier*	Pyspark
2020	Statistical Pattern Recognition [Dr. Faez] *Singular value decomposition algorithm for octonion signal and image denoising*	MATLAB
2020	Data Analytics [Dr. Sharifian] *Data acquisition and processing environment for IoT applications with Apache Kafka and TensorFlow Serving*	Virtual Machine, Linux, Docker
2019	FPGA [Dr. Sharifian] *Implementing pipe-lined CORDIC Block on FPGA*	VHDL

CERTIFICATES:

2022	**Convolutional Neural Networks** *DeepLearning.AI*	https://www.coursera.org/account/accomplishments/verify/VKBSAVYUZSSS
2022	**Generative Adversarial Networks (GANs) Specialization** *DeepLearning.AI*	https://www.coursera.org/account/accomplishments/specialization/K68AT2RDD8XN
2022	**Structuring Machine Learning Projects** *DeepLearning.AI*	https://www.coursera.org/account/accomplishments/verify/ZUP5P4NBM3NX
2022	**Machine Learning** *Stanford University*	https://www.coursera.org/account/accomplishments/verify/NRHF4N5YMFH2
2022	**Improving Deep Neural Networks: Hyperparameter Tuning, Regularization, and Optimization** *DeepLearning.AI*	https://www.coursera.org/account/accomplishments/verify/ZVHDKSYV5FVZ
2022	**Neural Networks and Deep Learning** *DeepLearning.AI*	https://www.coursera.org/account/accomplishments/verify/UF77DE6SVWZD
2021	**FIFTH IPM ADVANCED SCHOOL ON COMPUTING & ARTIFICIAL INTELLIGENCE** *IPM Advanced School on Computing: Artificial Intelligence*	https://raw.githubusercontent.com/kamyabazizi/kamyabazizi.github.io/main/images/CER2.jpg
2017	**Executive Member in the 5th RSI International Conference on Robotics and Mechatronics** *ICRoM*	https://raw.githubusercontent.com/kamyabazizi/kamyabazizi.github.io/main/images/CER1.jpg

HONORS:

- **15th rank in the Iranian National Scientific Olympiad for University Students in Electrical and Electronics Engineering**
  Issued by Sanjesh Organization – Dec 2020 (https://gto.aut.ac.ir/content/8449/)
- **Ranked Within the Top 0.27%**
  (30th) Amongst ~11,000 participants in the national M.Sc. Entrance Exam in Electrical Engineering – Sep 2020
- **Ranked Within the Top 0.25% of students in the Iranian National University Entrance Exam**
  (454th) Amongst ~181,000 participants in the national university entrance exam – Sep 2015

NAME AND EMAIL OF TWO REFERENCES:

HASSAN TAHERI. Associate Professor, Department of Electrical Engineering, Amirkabir University of Technology

Email: htaheri@aut.ac.ir

KARIM FAEZ. Professor, Department of Electrical Engineering, Amirkabir University of Technology

Email: kfaez@aut.ac.ir

KEY PUBLICATIONS

Using Structured Pruning to Find Winning Lottery Tickets: (https://ieeexplore.ieee.org/abstract/document/10105376)

Fabrication of heartbeat signal acquisition device and monitoring of the signal on mobile screen: (https://arxiv.org/abs/2302.06272)

Convolutional Neural Network Classifier for Unmanned Aerial Vehicles Detection and Identification Using Mel-Frequency Spectrograms (Accepted for ICROM conference**)**

Small Dataset Machine Learning Approach in Nanoparticle Synthesis Experiments (In preparation**)**