

Amir H. Malekijoo

Curriculum Vitae

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Educations

- 2021-2022 **Research Assistant at IS department**, *University of Maryland, BC, MA, USA.*
- 2015–2019 **M.Sc. in Computer Engineering -AI and Robotics**, *Semnan University, Semnan, Iran.*
- 2010-2015 **B.Sc. in Computer Engineering -Software**, *Tehran Azad University (IAU), Teh, Iran.*

Areas of Interest

Interactive AI/ML, Pattern Recognition, Decision Making Theory
 Deep Learning, Reinforcement Learning, Generative Methods
 Self-Learning, Knowledge Representation, Multi-Objective Problems, Optimization
 Human-Computer Interaction, Virtual Reality (VR) and Augmented Reality (AR)

Publication

Amir H. Malekijoo, S. Mehrkian "Text Sentiment Analyses and its Influence on predicting stock shares with Deep Learning".(ongoing, approximate submit date, May 2025)

Amir H. Malekijoo, "Computation Offloading with Lyapunov-guided Deep PPO ".(ongoing, approximate submit date, March 2025)

M. Dashti, M. A. Habibi, N. Nejati, B. Robat-Jazi, M. Ahmadpur, A. Rezaei Nejad, **Amir H. Malekijoo**, F. Jadidi-Niaragh, "Clinical Efficacy and Safety of CD7-Targeted CAR T Cell Therapy for T-cell Malignancies: A Systematic Review and Meta-analysis", *Anti-Cancer Agents in Medicinal Chemistry*; Volume 24, Issue, Year 2024, e18715206321313. DOI: 10.2174/0118715206321313240820101412

M. Dashti, M. A. Habibi, N. Nejati, B. Robat-Jazi, M. Ahmadpur, N. Dokhani, A. Rezaei Nejad, S. Karami, E. Alinejad, **Amir H. Malekijoo**, A. Ghasemzadeh, F. Jadidi-Niaragh, "Clinical Efficacy and Safety of Pembrolizumab Therapy for B-cell Lymphoma: A Systematic Review and Meta-analysis", July 2024, *Submitted to Reviews on Recent Clinical Trials*

H. Malekijoo, V. Hakami, N. Taheri Javan, **Amir H. Malekijoo**, "Q-Learning-Based Algorithms for Dynamic Transmission Control in IoT Equipment with Rechargeable Battery," *The Journal of Supercomputing* 79 (1), 75-108

Amir H. Malekijoo, M.Fadaeieslam, H. Malekijoo, M. Homayounfar, Farshid Alizadeh-Shabdiz, and R. Rawassizadeh. "FedZip: A Compression Framework for Communication Efficient Federated Learning." (Revised in *Applied Intelligence Journal*, Dec 2021) [PrePrint Version](#)

M. Homayounfar, **Amir H. Malekijoo**, A. Visuri, C. Dobbins, E. Peltonen, E. Pinksky, K. Teymourian, and R. Rawassizadeh. "Understanding Smartwatch Battery Utilization in the Wild," *Sensors* 2020, 20, 3784. [Journal Link](#)

Amir H. Malekijoo, M. Fadaeieslam, " Convolution-Deconvolution Architecture with Pyramid Pooling Module for semantic segmentation," *Multimedia Tools and Application*, Multimed Tools Appl 78, 32379–32392, 2019. [Journal Link](#)

Links

◦ [Google Scholar](#)

◦ [GitHub](#)

Experience

Aug 2014 **Computer Engineer (CE)**, *Barg Sabz Mehr Damavand Co., Teh, Iran.*

- Present Developed a data analyzer program for Sales and Purchase Department
- Designed a Comprehensive smart program to predict the demand of the sales and purchase volume.
 - Analyzed the data with modern algorithms.
 - Programming with different platforms

Sep 2018 - **Smart System Designer - Intern**, *Electronic Trade Arman Mashahir (ETAM), Teh, Iran.*

Jan 2019 Working under a leading startup in the area of online games.

- Designed and run smart models.
- Provided an CONVERSATIONAL AGENT IN PERSIAN.
- Designed the agent with two modules. Speech-to-text, Text-to-speech
- Worked with real-world problems on real-world datasets

Sep 2010 **Computer Engineer (CE)**, *Barg Sabze Persian Co, Teh, Iran.*

Aug 2014 Gathering requirements, and designing a digital system for the company

- Designed and implemented Network system
- Designed and implemented Security System
- Taught and Supported Integrated accounting Software for employees

Oct 2011 - **Computer Engineer - Network (IT), Intern**, *Simia Pardazeshgar Gharb Co., Teh, Iran.*

April 2012 improving design skills, gaining team-work experiences, and problem-solving.

- Designed different active and passive Networks
- troubleshoot and diagnosed the occurred problems for clients

Projects

Some of Freelancing Projects

- RL Bot (MQL5) for Stock Market
- Scraping web pages for extracting Big Data
- YOLOv5, YOLOv7, Tlg Game Bot
- Image Translation using GANs
- Digital Twin
- LSTMs for Persian Speech Recognition
- Fault detection for (real) Production Factory
- Text To Speech Agent
- Humanoid Robotic, NLP part
- etc

Technical Skills

Programming Languages

- Python, C/C++, MATLAB
Java, R

3D Development Platforms

- Unity, AR/VR (beginner)

DL and LLMs Experiences

- MLPs FeedForward
- CNNs FCN, GoogleNet, P-DecovNet
. VGG, YOLO, Attention CNN
- RNNs LSTMs
- GANs CycleGANs,
. Adversarial Autoencoder
- RLs PolicyGradient, Q-Learning

- FLs FedAvg, FedSgd, FedZip
- Transformers AutoEncoders

ML Libraries

- TensorFlow, Keras, PyTorch
. MATLAB DNN Toolbox

Tools and Tech

- Docker, Images, Containers
GIT, VCS, L^AT_EX
- OpenAI Gym, ROS
- Linux, OS X, Windows,

Scientific Libraries

- NumPy, Pandas, Scipy

- mlpack, OpenCv, Sklearn
- RegEx, NLTK, NeuroKit
- Matplotlib, BeautifulSoup,

Languages

- Persian (Native), English (Advance)

Certificates

- C++ , Python Programming Certificates
- Microsoft Certified IT Professional (MCITP)
- Cisco Certified Network Associate (CCNA) and (CCNP - Route)

Personal Interests

- Tree Planting, Traveling
- Horse Riding
- Soccer, Swimming, Fitness