

# Amir Dalili-Yazdi

COMPUTER ENGINEER

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## Education

### Sharif University of Technology

Master of science in Computer Engineering | GPA : 18.63

Tehran, Iran

#### Thesis:

Title: Performance Evaluation of Large-Scale Delay Tolerant Networks

2017 - 2020

Supervisor: Prof. Ali Movaghar

### Islamic Azad University Central Tehran Branch

Bachelor of Science in Computer Engineering | GPA : 18.61

Tehran, Iran

#### Project:

Title: Study of security models in the Internet of Things

2013 - 2017

Supervisor: Dr. Vahe Aghazarian

## Key Courses

**M.Sc.** Machine Learning, Deep Learning, Convex Optimization, Information Theory, Advanced Operating systems, Computer system Performance Evaluation, Wireless Communication

**B.Sc.** Artificial Intelligence, Database, Data Structures, Compiler Design, Operating systems, Fundamental of Programming, Advanced Programming, Software Engineering

## Experiences

### Sharif University of Technology

Teaching Assistant

Feb 2020 - Sep 2020

- (40719) Deep Learning , CE sharif university
- Dr. Mahdiah Soleymani

Teaching Assistant

Sep 2019 - Jan 2020

- (40717) Machine learning, CE sharif university
- Dr. Mahdiah Soleymani

## Projects

### Comment Analyzer

This is a Sentiment Analysis project. A Web Application that determines whether a comment given for a product is positive or negative(with the probability)! In other words, whether the person who bought the product is satisfied or not! 📄 Apr. 2021

#### Details:

- The entire model consists of three networks:
  - Encoder (2-layer and Bidirectional - LSTM)
  - Encoder2Decoder (MLP)
  - Decoder (with Attention - LSTM)
- Word indexes 1 to 244 were given to a 2-layer bidirectional LSTM (Encoder).
- The hiddens of the last time step were given to the Encoder2Decoder Network(MLP) to obtain the decoder hiddens.
- For better result, the Attention mechanism which is a simple MLP was used.
- Then, a combination of Attention outputs and the Encoder hiddens were given to the Decoder.
- Loss function : **CrossEntropy**
- Implemented with **Pytorch**
- Accuracy  $\simeq$  95 %

**Keywords :** RNN - LSTM - Attention - Encoder2Decoder

### Smart Snake

This is a Reinforcement Learning project. In this project, Agent(snake) learns how to play the snake game1. The game board is 12x12. The snake moves in the 10x10 area and eats the food. Eating the food increases the length of the snake. The snake must learn how to eat the food without running into the screen border or itself. 📄 Oct. 2020


#### Details :

- The learning algorithm is DQN.
- Average Test scores : 20
- Best achieved score : 49
- Loss function : **MSELoss**
- Implemented with **Pytorch**

**Keywords :** Reinforcement Learning - DQN

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## Dog Breed Classification

This is a Classification project. A Web Application that receives a dog picture as input and returns its breed as output. The model predicts the breed from 150 different breeds. 

May, 2020

### Details :

- The Pretrained **EfficientNet-B3** model was used.
- Image was fed into the model and the last Conv features were saved.
- These features were fed into a one layer classifier (Training).
- Loss function : **CrossEntropy**
- Implemented with **Pytorch**
- Accuracy  $\simeq$  **92.6 %**

**Keywords :** CNN - EfficientNet - 5 Fold CV

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## Awards

Ranked 1st among all B.Sc. students of Computer Software Engineering in 2013

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## Certifications

Coursera **AI for Medicine Specialization**

Mar 2022

Coursera **Generative Adversarial Networks (GANs) Specialization**

Jun 2021

Coursera **Deep Learning Specialization**

Sep 2020

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## Skills

### Computer Skills

HTML - CSS - JS - jQuery - Bootstrap - Git - Linux - Python - Pytorch - Networking (Active Directory - Group Policy - File Sharing)

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## Publications

[1] Rashidi, L., Dalili-Yazdi, A., Entezari-Maleki, R., Sousa, L. and Movaghar, A., 2021. Modeling Epidemic Routing: Capturing Frequently Visited Locations While Preserving Scalability. IEEE Transactions on Vehicular Technology, 70(3), pp.2713-2727.

[2] Rashidi, L., Dalili-Yazdi, A., Entezari-Maleki, R., Sousa, L. and Movaghar, A., 2020. Performance Modeling of Epidemic Routing in Mobile Social Networks with Emphasis on Scalability. arXiv preprint arXiv:2002.05884.