

# HOSSEIN KHALILIAN GOURTANI

M.Sc. (Graduation date September 2021)

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## EDUCATION

### M.Sc. Computer Engineering (Artificial Intelligence)

📅 Sep 2018 – Sep 2021

📍 Amirkabir University of Technology, Tehran, Iran

- GPA: 3.87/4
- 4th Rank among 53 Students
- Dissertation title: "Distributed Deep Learning for Big Data"
- Advisor: Dr. Maryam Amir Haeri

### B.Sc. Information Technology (Double Degree)

📅 Sep 2014 – Sep 2018

📍 Isfahan University of Technology, Isfahan, Iran

- GPA: 3.88/4
- 1st Rank among 75 Students

### B.Sc. Electrical Engineering (Communication)

📅 Sep 2013 – Sep 2018

📍 Isfahan University of Technology, Isfahan, Iran

- GPA: 3.88/4
- Top 10% among 120 students
- Thesis: "Design and Implementation of VoIP Gateway"

## RESEARCH INTERESTS

- Graph Neural Networks
- Natural Language Processing
- Time Series
- Deep Reinforcement Learning
- Deep Learning
- Big Data
- Large-Scale Machine Learning
- Mathematics
- Complex Networks

## SELECTED COURSES

- Machine Learning
- Evolutionary Computing
- Databases
- Neural Networks
- Convex Optimization
- Advanced Programming
- Big Data Analytics
- Statistical Pattern Recognition
- Data Structures
- Algorithms for Complex Networks
- Image Processing
- Computer Networks

## WORKING PAPERS

Evaluating Different Techniques of Reinforcement Learning and Graph Representation Learning for Device Placement Problem

## TEACHING EXPERIENCE

Amirkabir University of Technology, Tehran, Iran

Teaching Assistant, Professor Nazerfard, Machine Learning

📅 February 2021 – July 2021

Developed syllabus and overall course structure, conducted students, and administered the grades

Isfahan University of Technology, Isfahan, Iran

Teaching Assistant, Professor Moayedian, Computer Networks

📅 March 2017 – July 2017

Developed syllabus and course structure, held question answering sessions, and administered the grades

Isfahan University of Technology, Isfahan, Iran

Lab Assistant, Professor Fanian, Computer Networks Lab

📅 September 2017 – January 2018

Developed lab instructions and overall lab structure, held lab sessions, mentored students and administered the grades

## RESEARCH EXPERIENCE

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📅 May 2021 – July 2021

- Liveness Detection using Knowledge Distillation for Anomaly Detection

📅 September 2019 – July 2021

- Solving Placement Problem for Deep Neural Networks using Deep Reinforcement Learning and Graph Representation Learning Techniques as master thesis

## RELATED EXPERIENCE

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### Mom Center (Data Scientist)

📅 November 2021 – Current

📍 Tehran

- Improving Persian Automatic Speech Recognition Models
- Solving Item Matching Problem for Products using Vector Databases
- Developing News Article Recommender System
- Text Summarization and Keyword Extraction using Sentence-Transformers
- Developing APIs for the Systems and Dockerizing Projects

### Mofid Securities (Internship)

📅 April 2021 – July 2021

📍 Tehran

- Gathering, cleaning, and pre-processing data for training deep learning models
- Designing and training new models for anomaly detection in images
- Exporting and quantizing trained models for improving inference time
- Dockerizing projects and designing APIs for products

## VOLUNTARY WORKS

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- Senior Member and Head of Electrical Engineering Students Scientific Association (2016 & 2017)
- Member of organizing committee in IUT Startup Weekend (2015 & 2016)
- Teaching AVR for freshman students in electrical engineering department (2016)
- Member of organizing committee of Second Iranian Competition on Smart Grid (2016)

## HONORS & AWARDS

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- Admitted for master program at Amirkabir University of Technology and Isfahan University of Technology without entrance exam
- Awarded as an exceptional talent student and accepted for studying double major B.Sc. program at Isfahan University of Technology

## PROFESSIONAL SKILLS

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- Python (NumPy, Pandas, Transformers, Scikit-learn, gRPC)
- Machine Learning
- Natural Language Processing
- Automatic Speech Recognition
- Recommender Systems
- Semantic Search
- Deep Reinforcement Learning
- PyTorch & Tensorflow
- SQL & NoSQL
- Mathematics & Statistics
- Graph Algorithms
- Linear Algebra
- Data Visualization
- Git

## LANGUAGES

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- English (Proficient)
- Persian (Native)

## REFERENCES

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Dr. Maryam Amir Haeri  
@ University of Twente

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Relation: Master thesis supervisor

Dr. Amir Hossein Payberah  
@ KTH Royal Institute of Technology

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Relation: Master thesis advisor

Dr. Ehsan Nazerfard  
@ Amirkabir University of Technology

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Relation: Teacher Assistant