Farane Jalali Farahani

Max Planck Institute for Informatics, Saarland Informatics Campus, Germany
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EDUCATION

Sharif University of Technology *Tehran, Iran*
M.S. in Computer Engineering - Artificial Intelligence *Sept.2018 - Sept.2020*
GPA: 3.7 / 4
Thesis: Persian Named Entity Recognition
Supervisor: Gholamreza Ghassem-Sani

Iran University of Science and Technology *Tehran, Iran*
B.S. in Computer Engineering - Hardware Engineering *Sept.2012 - Feb.2017*
GPA: 3.05 / 4
Thesis: Implementation of Smart Irrigation System in IoT
Supervisor: Morteza Analoui

Allameh Tabatabaei high school *Tehran, Iran*
Pre-University Diploma in Mathematics and Physics *Sept.2011 - Jun.2012*
GPA: 19.42 / 20

RESEARCH INTERESTS

- ►Machine learning and Deep learning
- ►Natural Language Processing
- ►Information Extraction
- ►Transfer Learning

PUBLICATIONS

BERT-PersNER: a New Model for Persian Named Entity Recognition
Proceedings of Recent Advances in Natural Language Processing (RANLP 2021) , 1-3 September 2021, Varna, Bulgaria (Online), pp. 647-654.)

· Authors: Farane Jalali Farahani, Gholamreza Ghassem-Sani

WORK EXPERIENCE

Natural Language Processing Max Planck Institute for Informatics, Saarbrücken, Germany
Intern *May 2021 - Present*

· Supervisors: Gerhard Weikum, Andrew Yates, Paramita Mirza
· Responsibilities: Improving neural language models for information extraction tasks.

Internet of things Iran Telecommunication Research center, Tehran, Iran
Intern *Jun. 2015 - Oct. 2015*

· Supervisors: Nasser Mozayani, Farzad Ebrahimi
· Responsibilities: Implementing smart lighting using Raspberry Pi and designing an Android application.

ACADEMIC EXPERIENCES

Teaching Assistant — Sharif University of Technology
Stochastic Processes in Bioinformatics — *Fall 2019*

- Code: CE556
- Instructor: Mohammad Hossein Rohban
- Responsibilities: Teaching, managing assignments, and grading quizzes.

Teaching Assistant — Sharif University of Technology
Artificial Intelligence — *Spring 2019*

- Code: CE417, Group :1
- Instructor: Mohammad Hossein Rohban
- Responsibilities: Managing assignments.

Teaching Assistant — Sharif University of Technology
Artificial Intelligence — *Spring 2019*

- Code: CE417, Group :2
- Instructor: Mahdieh Soleymani
- Responsibilities: Grading quizzes.

Research Assistant — Sharif University of Technology
NLP Lab — *Sept. 2018 - Sept. 2020*

- Supervisor: Gholamreza Ghassem-Sani
- Responsibilities: Combining transfer learning and active learning methods for Persian NER

Teaching Assistant — Iran University of Science and Technology
Introduction to Computer Programming(C++) — *Spring 2014*

- Instructor: M. Reza Torkashvan
- Responsibilities: Teaching and managing assignments.

HONORS AND AWARDS

►Ranked **12th** among more than 19,000 participants in Master Entrance Exam of 2018 in computer engineering.
►Awarded full scholarship from **Sharif University of Technology (SUT)** in computer engineering.
►Ranked **80th** among more than 15,000 participants in Master Entrance Exam of 2018 in Information Technology.
►Ranked top **1**% among more than 30,0000 participants in National University Entrance Exam of 2012.
►Awarded full scholarship from **Iran University of Science and Technology (IUST)** in computer engineering.

SELECTED COURSE PROJECTS

Course: Deep Learning
Deap learning pakages: Pytorch
►Transfer learning for CNN classification(datasets: CIFAR-100, CIFAR-10)
►Times series prediction using GRU, LSTM(dataset: Apple Inc.'s stock price)
►Generative adversarial network(dataset: MNIST)

►Sequence generation using LSTM(dataset: Shakespeare)
►Denoising Autoencoder and Conditional Variational Autoencoder(dataset: MNIST)

Course: Machine Learning
Machine Learning libraries: Numpy, Pandas, Matplotlib
►Classification for sensor-based human activity recognition (SVM, logistic regression, Adaboost, random forest)

Course: Artificial Intelligence
►Search in Pipe and Connect Four games using Python

Course: Very Large Scale Integration (VLSI)
►Implementing Adder using LEdit

Course: Computer Architecture
►Implementing CPU using Xilinx ISE

Course: Automatic Design of Digital Circuits
►Implementing AES Encryption using Verilog

SELECTED COURSES

Deep Learning (20/20), Machine Learning Theory (19.6 /20), Artificial Intelligence Planning (17.8 / 20), Artificial Intelligence (19 / 20), signal and systems (19/20), Embedded Real time Systems (20 / 20), Digital Electronic(18.33 / 20), Engineering Probability and Statistics(18.5 / 20), Linear Control Systems (19 / 20), VLSI (18.25 / 20), Computer Architecture (17.91 / 20)

PROGRAMMING AND APPLICATION SKILLS

Programming Languages	Python, MATLAB, Verilog, C++, HTML, CSS, JavaScript, Prolog, Assembly
Machine Learning Libraries	Numpy, Pandas, Matplotlib
Deep Learning Framework	Pytorch
NLP ToolBox	Pytorch-transformers
Software	Visual Studio, IntelliJ, Eclipse, Xilinx ISE, LEdit, PSpice, ModelSim
Data Analysis Tools	Jupyter Notebook
Document Preparation	LaTex, Microsoft office, Prezi

LANGUAGES

English	Fluent
Persian	Native
Arabic	Basic
German	Basic

HOBBIES AND INTERESTS

♫ Listening to music and dancing
≈ Swimming
☼ Travelling