Yasaman Mirmohammad

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RESEARCH INTERESTS

- Machine Learning
- Computer Vision
- Deep Learning and Neural Networks
- Cognitive Robotics
- Computational Neuroscience
- Cognitive Science
- Pattern Recognition
- Image Processing
- Big data Analysis

EDUCATION

Amirkabir University of Technology, Tehran, Iran
- B.S. in Computer Engineering, GPA: 14.37 / 20, ,Total Passed Credits: 81 — Sep 2015 – Sep 2019

Sama School(2008-2014) , Sadra School(2014-2015), Tehran, Iran
- Diploma in Mathematics and Physics Discipline, GPA: 19.78/20 — 2010– 2015

RESEARCH EXPERIENCE

- **Lab Of Robotics and Cognitive science**
  (Amirkabir University of Technology, Iran,Tehran) — Aug 2017 – Dec 2017
  - Project: Datamining and Cognitive science concepts
- **Big Data Lab**
  (Amirkabir University of Technology,Iran,Tehran) — Jul 2018 – Now
  - DeepFM: A Factorization-Machine based Neural Network for CTR Prediction
  - Wide and Deep Graph Convolutional Neural Network Matrix Completion
    under Supervision of Dr.M.Amihaeri
- **Brain and Cognitive Lab**
  (Royan Institute,Iran,Tehran) — Jun 2018 – Now
  - Summer Internship under Supervision of Dr.M.Khaligh Razavi

HONORS & AWARDS

- Member of Coursera Mentoring Team(IBM Courses): — Aug 2018 – Now
  - •Fundamentals of Scalable Data Science
  - •Advanced Machine Learning and Signal Processing
  - •Applied AI with DeepLearning
  - •Advanced Data Science Capstone

  2018 – Now
- Ranked top 0.4 % among more than 180,000 students participated in the nationwide entrance examination of undergraduate studies in Iranian universities — 2014 – 2015
- accepted for 2nd level of computer Olympiad — 2013
- Member of National Organization for Bilingual Schools — 2007 2014

PUBLICATIONS

Wide and Deep Graph Convolutional Neural Network Matrix Completion, (To Be Submitted) — 2018

TEACHING EXPERIENCE

Principles of Programming,Amirkabir University of Technology — Fall 2018

Discrete Mathematics,Amirkabir University of Technology — Spring 2017
- Instructor: Dr.m.s.Fallah

Discrete Mathematics,Algebra and Geometry,Sadra School — Fall 2016
- Instructor: Dr.m.Rashedi

Fundamentals of Physics,Sadra School — Fall 2016
- Instructor: A.Jamshidi

LANGUAGE SKILLS

- **Persian**: Native language.
- **English**: Fluent (speaking, reading, writing).
- **French**: Basic (reading); basic (speaking, writing).

TECHNICAL SKILLS

•**Programming and Development**

– Python(2,3)
– C,C++
– Java
– MATLAB
– HTML+CSS
– JavaScript(Familiar)

• **Software libraries and distributions**:

– Scikit-Learn
– Pandas
– Numpy
– OpenCV
– Conda
– Tensorflow
– Keras

•**DataBase Design**

– MySQL
– NoSQL(MongoDB)

•**Others**:

•LaTeX

•Microsoft Word,Excel,PowerPoint

PROJECTS

•**Data Structure** :

– search engine using inverted index algorithm(C++)
– Finite-State Automata (Java)

•**Advanced Computer Programming**:

– Implementation of a graphical game (BattleShip-Online) (Java)
– Implementation of a simple image editor (Java)
– Implementation of a simple Encryption and encoding System (Java)

•**Principles of Computer and Programming** :

– living cell simulation (C)

•**Logic Design** :

– Designing a Traffic Light System (Verilog)

•**Computer Architecture and design** :

– Basic Computer,Compiler,Cache,Pipeline(VHDL)

•**Operating Systems**:
,Multithreading in Windows and Linux(C)

•**Design Automation**:

– Phase1:Implementation of a car parking system(VHDL).
– Phase2:Implementation of a co-software,hardware design using Microblaze(VHDL).
– Phase3:Implementation of a Plant-Watering System with a moisturizing detection system(VHDL)

•**Advanced Mathematics**:

– Phase1:Analyzing Distribution categories of a two class problem And PCA(Python,MATLAB)
– Phase2: Facial Recognition with Singular Value Decomposition(Python) based on paper

•**Artificial Intelligence**:

– Implementation of Classical and Non-Classical searches(BFS,DFS,Simulated annealing,Hill Climbing,Genetic) - (Python,Java,C++)

•**Principles of Data Mining**:

–Basic Methods and Algorithms of Supervised and Unsupervised Learning, all available here(Python)

CHALLENGES AND SELF STUDIES

•**Amirkabir First Data mining Challenge**(Fall 2017)

–Analyzing the bank customer's information

–Predicting the result

•**Deca Dataminig challenge**, Sharif University of Technology(Winter2018)

–Analyzing the Notification of an App and the effect of different kind of notifs on the satisfaction of the users.

•**Fanavard Dataminig challenge**,(Spring 2018)

–Analyzing and predicting of gold cost considering the cost in previous months

–Ranked top 7 teams for the final level(Summer 2018)

•I have been working on Data mining and data analysis concepts on "Fundamentals Of Data mining Concepts" (Fall 2017)

•I have been working on "Reinforcement Learning in Robotics" as my Representation and Research Course project(Fall 2017)

•"Lynda Introduction to Data Analysis with Python course"(Fall 2017)

•"Kaggle Titanic Competition" (Fall 2017)

•"Kaggle House Prices Competition" (Fall 2017)

•"Code Academy Online Courses": Python, Java HTML+CSS , Javascript (2015-2017)

• **Sharif Machine Learning Workshop**(Winter 2018):

–Python Libraries for machine learning,Deep learning:Keras, Tensorflow

•" Digit Recognizer Competition" (Kaggle,Winter 2018)

•"Kaggle Deep Learning Course"(Winter 2018)

•"Dog Breed Identification Challenge " (Kaggle,Winter 2018)

• Machine Learning by Stanford University on Coursera (Certificate earned at Thursday, July 19, 2018 4:00 PM GMT)

•Neural Networks for Machine Learning by University of Toronto on Coursera (Certificate earned at Sunday, September 2, 2018 6:35 PM GMT)

•Introduction to Programming with MATLAB by Vanderbilt University on Coursera(Certificate earned at Thursday, July 26, 2018 10:57 AM GMT)

•Introduction to Big Data by University of California San Diego on Coursera(Certificate earned at Tuesday, July 24, 2018 7:14 AM GMT)

•Introduction to Deep Learning by National Research University Higher School of Economics on Coursera(Certificate earned at Tuesday, August 14, 2018 6:22 AM GMT)

•"Coursera Computational Neuroscience course",University of Washington(Spring 2018 - Now)

•"Coursera Visual Perception and the Brain course",Duke University(Spring 2018 - Now)

•"Introduction to Data Science in Python"(September 2018)

•"Mathematics for Machine Learning: Linear Algebra"(September 2018)

•I have been working on Fundamentals of Deep Learning on "Nature Deep Review" as a Review Paper(Spring 2018)

•"TensorFlow Speech Recognition Challenge " (Kaggle,Spring 2018)

•"Robotics Specialization:University of Pennsylvania"(October 2018)

INTERESTS Philosophy, Painting , Badminton , Music , Language and communication , History, Swimming

REFERENCES

•Further information, and Proofs are available upon Request.

•All Available in:

Github