MORTEZA HOSSEINIOUN • M.Sc.

About me

Resided in : Mashhad, Iran

Researcher
Samiee Chiropractic Center, 2018 - Present

Research assistant in Machine Learning with Graphs.
Sharif University of Technology [527951: Machine learning with Graphs.]

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Areas of expertise

Machine Learning (based on graph analysis), Network Science, Complex Networks, Data Science, Sport Analysis, Deep Learning.

Education

Sharif University of Technology
M.Sc. in Computer Networks *2016 - 2019*
GPA : 3.88 out of 4
• Supervisor : A. M. A. Hemmatyar, with Co-supervisory of A. Movaghar.
• Thesis : Detecting Community Structures in Patients with Peripheral Nervous System Disorders.
Score : Accepted with 'Excellent' score.
• Second Rank Student award.

Khayyam University of Mashhad
Bachelor in Software Engineering *2013 - 2015*
• Supervisor : A. Rezaee.
• Thesis : Design and implementation of Autra company offline mobile application (Practical)
GPA : 3.06 out of 4

Neyshabour Technical College (For Boys)
Associate in Computer- Software *2010 - 2012*
• Project : Hybrid Programming (Scheduling System)
GPA : 3.09 out of 4

Exams Scores

Duolingo Score 120 : (Certificate)

Academic and Research Experience

- **Predicting effectiveness in Chiropractic-based treatment with Deep Learning application.**, Samiee Chiropractic Center, 2020 - Present
  The idea of this study is to analyze and classify the patient's Cervical images so that the effectiveness of the Chiropractic could be predicted. This method can be utilized to help physicians decide whether this method of treatment could help the patients which can result in saving time and costs.

- **Research Assistant in Machine Learning with Graphs**, AIDA lab, Fall 2020
  Contributed to multiple works : Held various meetings with the instructor to designed projects, helped TAs team in correcting students practices, Designed a grading analysis system and selecting students for questions and answers, Provide several classrooms for students.

- **Teacher assistant in Computer Networking**, Computer Engineering Department, Fall 2018
  Designed assessment models for undergraduate students with a team of 12 TAs, including the instructor and teacher assistants in one semester.

- **Detecting Community structures in patients with Peripheral Nervous system disorders.**, Sharif University of Technology, 2017 - 2020
  I have worked on a research project as my thesis entitled "Detecting Community Structures in Patients with Peripheral Nervous System Disorders", in Dr. Hemmatyar and Dr. Movaghar's lab to model the human nervous disease processes utilizing network science (Bipartite Networks). I spent two summers at v, where I had the chance to collaborate with the medical team to discover new ideas and they provided me with personal data of the patients and enriched me with fruitful discussions. The results of our algorithm afterward, have been compared with the results of medical analysis.
- **Teacher assistant in Distributed algorithms**, Sharif University of Technology, Fall 2017
  Provided part of the classroom for undergraduate and graduate students, assessed students by personally designed models in the semester.

Work Experience

Researcher Effectiveness in Chiropractic-based treatment with Deep Learning application. Samiee Chiropractic Center *2019 - Present*

Scientific Intern Contributed to the medical team to collect data, discussion to learn more about the Peripheral Nervous System, designed and developed several key components for the Data-collecting system in the Office, with a focus on the scalability challenge. Samiee Chiropractic Center *Summer 2017, 2018*

Deputy Executive Secretary in CADS17 Reviewed some papers submitted for admission to the conference, admission of approved people at Sharif University (Kish International Campus), CADS2017 *Fall 2017*

Chief Technology Officer ensure the proper functioning of all systems and components on a daily basis, assessment of optimized solutions processes, constantly offer a vision along with career turnover and motivational projects for a future careers, work with managers to identify trends and development that might influence to Co. units, Autra Burners Co. *2015 - 2019*

Senior Content Manager programmed and developed company website, designed and developed Factory warehouse management system, Autra Burners Co. *2011 - 2015*

Publications

- **Classification and Segmentation of Pulmonary Lesions in CT images using a combined VGG-XGBoost method, and an integrated Fuzzy Clustering-Level Set technique. (Under Revision), (arXiv)**
  N. Akhavan Javan, A. Jebreili, B. Mozafari, M. Hosseinioun

- **Detecting Community Structures in Patients with Peripheral Nervous System Disorders. (Under Preparation)**
  M. Hosseinioun, A. M. A. Hemmatyar, A. Movaghar, S. Ahmadifar, S. A. G. Ghahramani*
  ***** et al. and primary author.

Skills

Operating systems : Windows, MacOS, DOS, and Linux.

Programming languages : Python, Matlab, C/C++, C#, IEEE GPSS, 80x86 Assembler, PHP, mySQL, HTML and App Programming.

Office softwares : LaTex, Microsoft Office, Visual Studio, Visual basic,

Scientific softwares Python, Matlab and R.

Scientific packages work on : Stanford Snap, PyTorch, Graph Neural Networks, Open Graph Benchmark, Matlab BiMat package, Anaconda, D2L and etc.

Online Courses

CS224W : Machine Learning with Graphs Observed on course focuses on the analysis of massive networks which provide several computational, algorithmic, and modeling challenges. *August 2020*

Machine Learning Part of course until session 8 by Tom Mitchell. Carnegie Mellon University *July 2020*

Deep Learning Specialization Part of Neural Networks and Deep Learning course by Andrew Ng. (On Coursera) . *June 2020*

Data Analysis Learned to Import data sets, clean and prepare data for analysis, manipulate pandas Data Frame, summarize data, build machine learning models using scikit-learn. Build data pipelines
Achievements : Certificate. *April 2020*

Data Science Courses materials based on Python Basics, Python Data Structures, Python Programming Fundamentals, Working with Data in Python.
Achievements : Certificate. *April 2020*

Deep Learning Participated on course based on Classic image processing, Neural networks, Convolutional networks, Recommender system, object Detection and Classification, GAN, Keras and Tensorflow and OpenCV libraries. Ng. *April 2020*

Blockchain Partaken in the course with syllabus about blockchain, BitCoin network, Etherium network, and Mining strategies. *January 2019*

Systems Simulation 30 hours course work on IEEE GPSS Simulation system syllabus *2014*

References

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