



EHSAN BARATNEZHAD

SEEKING A CHALLENGING CS POSITION

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EDUCATION

MSc. | Tarbiat Modares University, Tehran, Iran

Sep 2017 - Jan 2020

Masters in Computer Science. Research area – Machine learning on Graph structure specifically on community detection. Supervision of Prof. [Mansoor Rezghi](#). Passed 24 units courses • GPA - 3.25/4 (2nd in class) [Transcript](#)

BSc. | Salman University, Mashhad, Iran

Sep 2013 - Jan 2017

Bachelors in Computer Science. Passed 134 units course• GPA – 3.8/4 (1st in class) [Transcript](#)

RESEARCH INTERESTS

- Network analysis
- Data mining and Machine learning applications
- Image processing
- Social media and recommender systems

PUBLICATION

1. Baratnezhad E. Crop Planting Schedule Optimization using Modified Matching Problem.
Status: Submitted to [horticulturae](#) journal
2. Baratnezhad E, Rezghi M. A Novel two Level Label Propagation Method for fuzzy community detection.
Status: Submitted to [procedia computer science](#) journal
3. Baratnezhad E, Rezghi M. Rainfall Data Analysis of Iran using Complex Networks View. In2020 10th International Conference on Computer and Knowledge Engineering (ICCKE) 2020 Oct 29 (pp. 175-180). IEEE.
Status: Published
4. Mohammad RA, Abolghasem KR, Behzad T, Mohammad A, Ehsan B. Simultaneous upscaling of two properties of reservoirs in one dimension using adaptive bandwidth in kernel function method. Petroleum Exploration and Development. 2019 Aug 1;46(4):746-52.
Status: Published
5. Mohammad RA, Abolghasem KR, Behzad T, Mohammad A, Ehsan B. Hierarchical multiresolution simultaneous upscaling of two features of the hydrocarbon reservoir based on the kernel function bandwidth: Application to the SPE-10 model
Status: Editing for [Petroleum Exploration and Development](#) journal
6. Baratnezhad E, Rezghi M. A fuzzy bi-clustering of users and item based on NMF for recommender systems.
Status: Editing for [applied soft computing](#) journal
7. Baratnezhad E, Rezghi M. Deep semi-NMF for recommender systems.
Status: Writing the paper

RESEARCH EXPERIENCE

- Designed a community detection algorithm on graph structure data.
- Implemented Climate zoning algorithm using graph representation.
- High spectral image classification using convolutional graph neuron network (GNN).
- Implemented license plate recognition using YOLO3 for university mini project.
- Solved problem of Corp planting Optimization using bipartite graph representation.
- Operated research on dimension reduction of petroleum data.
- Transfer learning using VGG16 to detect eye disease in early stages.

SELECTED COURSE CERTIFICATES

- Introduction to Machine Learning, Duke university [Credential](#)
- Convolutional Neural Networks, Deeplearning.ai, Professor: Andrew Ng. [Credential](#)
- Structuring Machine Learning Projects, Deeplearning.ai, Professor: Andrew Ng. [Credential](#)
- Neural Networks and Deep Learning, Deeplearning.ai, Professor: Andrew Ng. [Credential](#)
- Applied Machine Learning in Python, University of Michigan, Professor: Kevyn Collins [Credential](#)
- Matrix Methods, University of Minnesota, Professor: Daniel Boley. [Credential](#)
- Applied Social Network Analysis in Python, University of Michigan, Professor: Daniel Rom [Credential](#)
- Applied Machine Learning in Python, University of Michigan. [Credential](#)
- Data Science in python, University of Michigan. [Credential](#)
- Graph Theory, UC San Diego. [Credential](#)
- [And more](#)

TEACHING EXPERIENCE

- Teaching assistant of “Deep learning” Course for Graduate students (2021), professor: Mansoor Rezghi,
- Teaching assistant of “Machine learning” Course for Graduate students (2020), professor: Mansoor Rezghi ([ML2020](#)),
- Teaching assistant of “Deep learning” Course for Graduate students, professor (2019): [Ali Rajaei](#),
- The Secretary of Scientific-Students Associations of department of computer science at Tarbiat Modares University(2019),
- Instructor of “Python programming” workshop (2019),

SKILLS

- Research and development
- Advanced programming languages: Python, MATLAB
- Other programming languages: JavaScript, C#
- Full stack Web development

RELATED PASSED COURSES (grade out of 20)

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|---|--|---|
| <ul style="list-style-type: none">• Optimization (19)• Data mining (17)• Artificial Intelligence (20) | <ul style="list-style-type: none">• Deep learning (19)• Algorithms (20)• Advanced Programming (16) | <ul style="list-style-type: none">• Computer Simulations (20)• Game Theory (17)• List of all passed courses |
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LANGUAGE SKILLS

English – Fluence

Persian – Mother tongue

Spanish – Basic

REFERENCES

Dr. Mansoor Rezghi

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Science
Tarbiat Modares University

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Dr. Ali Rajaei

Department of Mathematics
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