

# HIMA NIKAFSHAN RAD

## Researcher & Instructor

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## EDUCATION

PhD student in Computer Science

### Griffith University

📅 Jun 2021 - ongoing 📍 QLD, Australia

- Topic: AI-Driven for Diagnostic and Prognosis in Amyotrophic Lateral Sclerosis (ALS)

M.S. in Computer Science

### Tabari University

📅 Sept 2011 - May 2013 📍 Babol, Iran

- Overall GPA: 18.15

B.S. in Applied Mathematics

### Khayyam University

📅 Sept 2006 - July 2010 📍 Mashhad, Iran

- Overall GPA: 14.60
- GPA of last two years(Credits:72): 15.49
- GPA of last year(Credits:32): 17.18

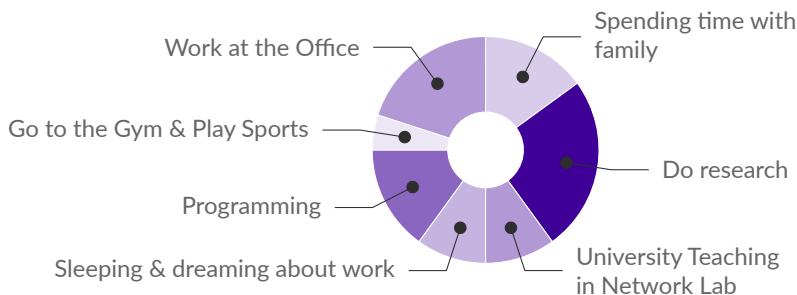
Professional Course

### Online Course

📅 2019 - present 📍 Online

- Applied AI with DeepLearning, IBM, Credential: UWUU8PJMEKHW
- Convolutional Neural Networks, deeplearning.ai, Credential: VDXMSQP79BT6
- Reliable Cloud Infrastructure: Design and Process, Google Cloud, Credential: DUBRU742UAVK

## A DAY OF MY LIFE



## LIFE PHILOSOPHY

*"A researcher at heart, I'm passionate about bringing transformative technologies to the world."*

## MOST PROUD OF



### Courage I had

I will become a great scientist, The future belongs to those who believe in the beauty of their dreams



### Persistence & Loyalty

I showed despite the hard moments in my life, my willingness to learning and publishing science



### Skill's Growth

In recent years, I have paid a lot of attention to scientific and research skill development

## STRENGTHS

- Hard-working
- Persuasive
- Team working
- Motivator

## INTERESTS

- Deep Learning
- Bioinformatic
- Reinforcement Learning
- Optimization Algorithm
- Cloud Computing
- Neuromorphic computing
- Time Series Analysis
- Prediction Method

## LANGUAGES

English  
Persian



## HOBBIES

- Spinning
- Hiking
- Swimming
- Music
- Reading
- Traveling
- Animal Care

# PUBLICATIONS

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## Journal Articles

- Yan Cao, Hima Nikafshan Rad, Danial Hamedi Jamali, Nasim Hashemian, Amir Ghasemi. "A Novel Multi-Objective Spiral Optimization Algorithm for an Innovative Solar/biomass-based Multi-Generation Energy System: 3E Analyses, and Optimization Algorithms Comparison" **Conversion and Management** (2020) **Q1, IF=9.71** doi:10.1016/j.enconman.2020.112961
- Mahdi Hasanipanah, Wengang Zhang, Danial Jahed Armaghani, Hima Nikafshan Rad. "The potential application of a new intelligent based approach in predicting the rock tensile strength of rock" **IEEE Access** (2020) **Q1, IF=3.367** doi:10.1109/ACCESS.2020.2980623
- Hongjun Jing, Hima Nikafshan Rad, Mahdi Hasanipanah, Danial Jahed Armaghani, Sultan Noman Qasem. "Design and implementation of a new tuned hybrid intelligent model to predict the uniaxial compressive strength of the rock using SFS-ANFIS" **Engineering with Computers** (2020) **Q1, IF=7.963** doi:10.1007/s00366-020-00977-1
- Xiaohua Ding, Mahdi Hasanipanah, Hima Nikafshan Rad, Wei Zhou. "Predicting the blast-induced vibration velocity using a bagged support vector regression optimized with firefly algorithm" **Engineering with Computers** (2020) **Q1, IF=7.963** doi:10.1007/s00366-020-00937-9
- Guichen Li, Deepak Kumar, Pijush Samui, Hima Nikafshan Rad, Bishwajit Roy, Mahdi Hasanipanah. "Developing a New Computational Intelligence Approach for Approximating the Blast-Induced Ground Vibration." **Applied Sciences** (2020): 434. **Q1, IF=2.679** doi:10.3390/app10020434
- Edriss Zaman Farsa, Arash Ahmadi, Mohammad Ali Maleki, Morteza Gholami and Hima Nikafshan Rad, "A Low-Cost High-Speed Neuromorphic Hardware Based on Spiking Neural Network." in **IEEE Transactions on Circuits and Systems II: Express Briefs** (2019): 1-5. **Q1, IF=3.29** doi:10.1109/TCSII.2019.2890846
- Hima Nikafshan Rad, Iman Bakhshayeshi, Wan Amizah Wan Jusoh, M. M. Tahir, Loke Kok Foong. "Prediction of Flyrock in Mine Blasting: A New Computational Intelligence Approach." **Natural Resources Research** (2019): 1-15. **Q1, IF=5.14** doi:10.1007/s11053-019-09464-x
- Haiqing Yang, Hima Nikafshan Rad, Mahdi Hasanipanah, Hassan Bakhshandeh Amnieh, Atefeh Nekouie. "Prediction of vibration velocity generated in mine blasting using support vector regression improved by optimization algorithms" **Natural Resources Research** (2019): 1-25. **Q2, IF=5.14** doi:10.1007/s11053-019-09597-z
- Hima Nikafshan Rad, Mahdi Hasanipanah, Mohammad Rezaei, and Amin Lotfi Eghlim. "Developing a least squares support vector machine for estimating the blast-induced flyrock." **Engineering with Computers** 34.4 (2018): 709-717. **Q1, IF=7.963** doi:10.1007/s00366-017-0568-0
- Hima Nikafshan Rad, Zakaria Jalali. "Modification of rock mass rating system using soft computing techniques." **Engineering with Computers** (2018): 1-25. **Q1, IF=7.963** doi:10.1007/s00366-018-0667-6
- Wusi Chen, Mahdi Hasanipanah, Hima Nikafshan Rad, Danial Jahed Armaghani, MM Tahir. "A new design of evolutionary hybrid optimization of SVR model in predicting the blast-induced ground vibration." **Engineering with Computers** (2018): 1-17. **Q1, IF=7.963** doi:10.1007/s00366-019-00895-x
- AminShokravi, Amir, Hajar Eskandar, Ali Mahmodi Derakhsh, Hima Nikafshan Rad, and Ali Ghanadi. "The potential application of particle swarm optimization algorithm for forecasting the air-overpressure induced by mine blasting." **Engineering with Computers** 34.2 (2018): 277-285. **Q1, IF=7.963** doi:10.1007/s00366-017-0539-5

# TEACHING

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## Local Computer Networking

**Mashhad Azad Uni.**

📅 2017 - 2018

Computer Networks Laboratory

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## Teacher Assistant

**Mashhad Azad Uni.**

📅 2017

Workshop Topic: Implementation of Cloud Computing Infrastructures: CloudSim

# JOURNAL REVIEWER

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## Journal of Cleaner Production

📅 2020 - Ongoing 📍 Netherlands/Elsevier

## Energy Conversion and Management Journal

📅 2022 - Ongoing 📍 Netherlands/Elsevier

## Measurement Journal

📅 2022 - Ongoing 📍 Netherlands/Elsevier

## The Science and Technology of Fuel and Energy

📅 2022 - Ongoing 📍 Netherlands/Elsevier

## IEEE ACCESS

📅 2019 - Ongoing 📍 IEEE

## Engineering with Computers Journal

📅 2019 - Ongoing 📍 Germany/Springer

## Journal of Network and Computer Applications

📅 2018 - Ongoing 📍 United States/Elsevier

## Open Civil Engineering Journal

📅 2017 - Ongoing 📍 United Arab Emirates

## Natural Resources Research (NARR)

📅 2019 - Ongoing 📍 Germany/Springer

## PUBLICATION

- Azam Shahnazar, **Hima Nikafshan Rad**, Mahdi Hasanipanah, M. M. Tahir, Danial Jahed Armaghani, and Mahyar Ghoroghi. "A new developed approach for the prediction of ground vibration using a hybrid PSO-optimized ANFIS-based model." **Environmental Earth Sciences** 76.15 (2017): 527.**Q2, IF=2.74** doi:10.1007/s12665-017-6864-6
- **Hima Nikafshan Rad**, Zakaria Jalali, and Hossein Jalalifar. "Prediction of rock mass rating system based on continuous functions using Chaos-ANFIS model." **International Journal of Rock Mechanics and Mining Sciences** 73 (2015): 1-9.**Q1, IF=7.13** doi:10.1016/j.ijrmms.2014.10.004
- Karim, Sarkhel H. Taher, Tofiq Ahmed Tofiq, Mortaza Shariati, **Hima Nikafshan Rad**, and Amir Ghasemi. "4E analyses and multi-objective optimization of a solar-based combined cooling, heating, and power system for residential applications." **Energy reports** 7 (2021): 1780-1797.**Q1, IF=6.870** doi:10.1016/j.egyr.2021.03.020
- Zhu, Wei, **Hima Nikafshan Rad**, and Mahdi Hasanipanah. "A chaos recurrent ANFIS optimized by PSO to predict ground vibration generated in rock blasting." **Applied Soft Computing** 108 (2021): 107434.**Q1, IF=6.725** doi:10.1016/j.asoc.2021.107434
- Cao, Yan, Hayder A. Dhahad, Naeim Farouk, Wei-Feng Xia, **Hima Nikafshan Rad**, Amir Ghasemi, Saeed Kamranfar, Mostafa Mostafavi Sani, and Ali Akbar Shayesteh. "Multi-objective bat optimization for a biomass gasifier integrated energy system based on 4E analyses." **Applied Thermal Engineering** 196 (2021): 117339.**Q1, IF=5.295** doi:10.1016/j.applthermaleng.2021.117339
- Cao, Jing, Juncheng Gao, **Hima Nikafshan Rad**, Ahmed Salih Mohammed, Mahdi Hasanipanah, and Jian Zhou. "A novel systematic and evolved approach based on XGBoost-firefly algorithm to predict Young's modulus and unconfined compressive strength of rock." **Engineering with Computers** (2021): 1-17.**Q1, IF=7.963** doi:10.1007/s00366-020-01241-2
- Karim, Abdul, Zheng Su, Phillip K. West, Matthew Keon, NYGC ALS Consortium, Jannah Shamsani, Samuel Brennan et al. "Molecular Classification and Interpretation of Amyotrophic Lateral Sclerosis Using Deep Convolution Neural Networks and Shapley Values." **Genes** 12, no. 11 (2021): 1754.**Q1, IF=4.09** doi:10.3390/genes12111754

### 🌸 Conference Proceedings

- **Hima Nikafshan Rad**, Homayun Motameni. "Reduce Data Anomalies Using Manifold Learning" **Pattern Recognition and Image Analysis (PRIA)** (2013).
- Homayun Motameni, Hesam Omranpur, **Hima Nikafshan Rad** "Modeling and evaluation of trust in the cloud using Petri net" **International Conference on Nonlinear Modeling and Optimization-ICNMO** (2012).
- **Hima Nikafshan Rad**, Zakaria Jalali. "Estimate geomechanical rock mass classification system (RMRb) based on continuous rating using ANFIS-FCM" **5th Iranian Mining Engineering Conference** (2014).
- Gholamreza Abdollah-Zade, Rosa vosughi-kia, **Hima Nikafshan Rad**, Kaveh Vaziri. "Modeling and Evaluation of prediction security on risk management cycle, public safety and health using stochastic Petri net(Case Study: Tehran metros site)" **8th National Congress On Civil Engineering** (2013).

## ACTIVITIES

Consistent membership

**Iranian society of machine vision and image processing(ismvip)**

📅 2013 – 2016

📍 Tehran, Iran

Active membership

**Young Researchers and Elite Club**

📅 2017 – Ongoing

📍 Mashhad, Iran

## GIVING TALK

**ICNMO 2012**

📅 2012

📍 Amol, Iran

Talk on modeling the security of virtual machines in the cloud based on Formal method

## OPERATING SYSTEM

Linux(ubuntu)



Windows



## PROGRAMMING

Python



Matlab



R



C/C++



Verilog



## SOFTWARE

Vertex AI



CloudSim



## WEB

CSS



HTML5



## DATA BASE

BigQuery



Sql Server



MangoDB



## EXPERIENCE

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### Researcher

#### GenieUs Genomic

📅 July 20121 - Ongoing

📍 Sydney, Australia

She is researcher for GenieUs Genomic Co, GenieUs is using the power of the human genome to unlock new solutions for neurodegenerative diseases. In those roles, she is focused on machine learning, artificial intelligence and bioinformatic research projects.

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### Co-Owner & CEO

#### Daneshyar (Knowledgebase Company)

📅 July 2016 - May 2021

📍 Mashhad, Iran

- Designing and implementing Software-Define Networking for support and durability
  - Rendering consultation for making business smart and analyzing the warehouse data of chain and hyper stores in order to profitability and increase the customer satisfaction
  - Rendering consultation in the field of information technology, data analysis, monitoring, and identifying the loyal customers in order to provide them with more services
  - Rendering consultation for improvement of the safety of data centers of the organization and increasing their performance as well as preventing inaccessibility of the data
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### Software Engineer & Researcher

#### Danesh Gostar Pargar

📅 Jun 2013 - Ongoing

📍 Tehran, Iran

She is researcher for Pargar Danesh Gostar Co, a company that conducts research in various fields of engineering and technology. In those roles, she is focused on machine learning, artificial intelligence and distributed system research projects. Also, she is mentoring undergraduate students to complete projects with some of professional softwares and teaching various courses.

## REFERENCES

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### Prof. Abdul Sattar

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