Zahra Ganji

Contact Information

Dept. Computer Engineering (CE)
Amirkabir University of Technology (AUT)
No.424 Hafez Ave., Tehran, Iran

Email: zra.ganji@gmail.com
Email (academic): zganji@aut.ac.ir
GitHub: Github.com/ZahraGanji
Homepage: s-ganji.github.io
Cell Phone :(+98) 919 077 8117

Research Interest

- Machine Learning
- Data Mining
- Computer Networks
- Natural Language Processing

Education

- **Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran**
  (Ranked 2nd among all Iranian engineering universities)
  B.Sc., Computer Engineering, Sep 2016 - Apr 2021
    - GPA: 15.65/20 - 140/140 credits
    - **GPA over the last important 60 credits: 18.09/20**

- **Farzanegan High School, Tehran, Iran**
  (National Organization for Development of Exceptional Talents (NODET))
  Diploma in Mathematics and Physics, Sep 2012 - Jun 2016
    - GPA: High School 19.55/20 , Pre-University 19.51/20

Relevant Coursework

- Data Mining: 20/20
- Web Programming: 20/20
- Principles of Database Design: 17.6/20
- Database Design Lab.: 20/20
- Principles of Computational Intelligence: 16/20
- Algorithm Design: 15.5/20
- Introduction to Bioinformatics: PASS*
- Information Retrieval: PASS*
- Principles of Management: 20/20
- Information Technology Project Management: 18/20
- Multimedia Systems: 18.5/20
- Information Security: 18.7/20
- Engineering Statistics: 17.1/20
- Computer Networks: 15.9/20
- Startup Development: PASS*
- Internet of Things: PASS*

∗ COVID-19 Semester(Grades were binary due to COVID-19)

Online Courses

- Mathematics for Machine Learning: Linear Algebra
- IBM Data Science Specialization

Publications

- **Ganji, Z.**, Shokri, S. and Ganji, H. (2022). Prediction of gas hydrate formation condition by data-driven modeling: Different machine learning models with vector quantization and cuckoo search algorithm. Submitted to Journal of Computers and Industrial Engineering (CAIE).

Teaching Experience

Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran

- **Instructor, C programming Language Lab.** Under supervision of Prof. Bahador Bakhshi and Prof. Hossein Zeinali (Fall 2020-2021)
- **Teaching Assistant, Computational Intelligence** Instructor: Prof. Mohammad Mahdi Ebadzadeh (Fall 2020-2021)
- **Teaching Assistant, Logic Circuits** Instructors: Prof. Mehdi Sedighi and Prof. Morteza Saheb Zamani (Fall 2020-2021)
- **Teaching Assistant, Electric Circuits** Instructors: Prof. Mahmoud Momtazpour (Fall 2019-2020)

Work Experience

- **Hami System Sharif**, Tehran, Iran (Jun 2019 - Sep 2019)
  Web Development Intern. (Linux (Ubuntu), Laravel, HTML, PHP, CSS, JavaScript, MySQL)
- **Papion**, Tehran, Iran (Jun 2017- Sep 2017)
  Web Development Intern. (HTML, PHP, CSS, JavaScript, MySQL)

Honors & Awards

- Achieved top 1% place among all applicants of the **Nationwide University Entrance Exam** for B.Sc. in Engineering (Approximately 163000 applicants), Iran, 2016.
- Accepted in **NODET High School Entrance Exam**, National Organization for Development of Exceptional Talents, Iran, 2012

Extracurricular Experience

- Staff member and member of executive committee of the **17th & 18th ACM International Collegiate Programming Contest (ICPC)** and **Linux Festival** at Computer Engineering and IT Department, Amirkabir University of Technology, 2017 - 2018

Notable Academic Course Projects

- **Deep Convolutional Neural Networks for Sentiment Analysis of Short Texts**
  Implementation of a deep convolutional neural network to analyze short texts using **Python**, B.Sc. Thesis Project.

- **Secure Communication between Client and Server**
  Implementation of a secure tunnel between a client and server for massage sharing using **Java**

- **Radial Basis Function Neural Network**
  Training RBF neural networks with evolution strategy (ES) using **Python**

- **Darmankade and Star Wars Websites**
  Implementation of a website with features and facilities similar to www.darmankade.com website and a website to collect and show the Star War movie information using **PHP, HTML, CSS, JS and MySQL**

- **Profile Hidden Markov Model**
  Solving triple HMM problems using **Python**

- **Clustering, Neural Networks and Classification**
  Implementation of Perceptron, Kmeans, Dbscan and some classification algorithms using **Python**

- **Peer to Peer File Transferring**
  Implementation of a file distribution system using **Java**

- **Image and Video Processing with OpenCV Library**
  Processing an image and a video with OpenCV library using **Python**

- **Search Engine**
  Implementation of some parts of a search engine **Python**

- **Search Algorithms**
  Implementation of graph and tree search algorithms in artificial intelligence for solving two problems using **Java**

- **Online Store Database**
  Designing database of an online store using **MySQL**

- **Color Image Quantization**
  Implementation of quantization methods such as median cut algorithm and dithering on an image using **MATLAB**

- **Distributed Calculator**
  Implementation of a calculator which performs calculations requested by a client on a server and sends results back to client using **Java**

- **Chat Room**
  Implementation of a chat room in which people can talk in groups using **Python**

- **Associations**
  Implementation of FP-Growth and Apriori algorithms using weka library in **Phyton**

- **Music-Website**
  A website which provides services related to music such as introducing new songs or upcoming concerts to users using **Laravel**

Skills

- **Programming Languages:**
  Python, Java, C
  Familiar: MATLAB, VHDL, Verilog, Assembly, Shell Script

- **Web Development:**
  HTML, CSS, JavaScript, PHP, Laravel

- **Database Systems:**
  SQL, Familiar with MongoDB

- **Data Science and AI:**
  Numpy, Pandas, Matplotlib, Scikit-Learn
  Familiar: Pytorch, Theano, sciPy, TensorFlow

- **Operating Systems:**
  Windows, Linux

- **Miscellaneous:**
  LaTeX, Git, OpenCV, Tkinter, Microsoft Office, PyCharm, IntelliJ IDEA, PhpStorm

Languages

- **Persian** (Native)
- **English** (Fluent) - **TOEFL iBT**: 97/120 (25^R, 25^L, 21^S, 26^W)

References

- **Hamid Ganji, Associate Professor**
  Head of Gas Research Division, Research Institute of Petroleum Industry(RIPI)
  Email: ganjih@ripi.ir

- **Saeid Shokri, Assistant Professor**
  Manager of Technology and Innovation Group, Research Institute of Petroleum Industry(RIPI)
  Email: shokris@ripi.ir

- **Hossein Zeinali, Assistant Professor**
  Member of Artificial Intelligent and Robotics Group, Computer Eng. Dept, Amirkabir University of Technology (Tehran Polytechnic)
  Email: hzeinali@aut.ac.ir

- **Mohammad Mehdi Ebadzadeh, Professor**
  Member of Artificial Intelligent and Robotics Group, Computer Eng. Dept, Amirkabir University of Technology (Tehran Polytechnic)
  Email: ebadzadeh@aut.ac.ir