# SAJJAD GHOLAMI

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## RESEARCH INTERESTS

- · Artificial Intelligence
- · Machine Learning
- · Neural Networks
- · Deep Learning

## **EDUCATION**

· Amirkabir University of Technology (Tehran Polytechnic), Tehran

(Top 150 universities in the field of Computer Science)

B.Sc. in Software Engineering

2010-2014 (Expected)

**GPA:** 17.26/20 (Last 2 years: 18.28/20)

Selected Coursework (GPA: 18.45/20):

Data Mining, Internet Engineering, MultiMedia Systems, Information Retrieval, Principles of Database Design, Software Engineering I, Design of Programming Languages, Computer Networks I, Research Methodology & Report Writings, Operating Systems, Design of Algorithms, Computer Architecture, Electronic Circuits, Theory of Machines and Languages, Electric Circuits, Logic Circuits, Data Structure, Machine Language Programming, Advanced Programming.

Elective Courses: Statistical Machine Learning (Graduate Level - ongoing), Data Mining

· NODET Highschool, National Organization for Development of Exceptional Talents, Mashhad, Iran, Diploma in Mathematics & Physics 2006-2010 GPA: 18.15/20

# HONORS AND AWARDS

- · Eligible for applying to continue education in the Masters' program at the Department of Computer Engineering and Information Technology (CEIT) without taking the "National Entrance Exam for Graduate Schools", as a reward of having high total GPA, 2013
- Amirkabir Artificial Intelligence Conference (AAIC) certificate from Amirkabir University of Technology, 2013
- · Ranked top 0.3% in the National Entrance Exam among all Iranian Students in Math. & Physics. 2010
- · Network+ Certificate from Amirkabir University of Technology, 2012
- · Cloud computing certificate from Amirkabir University of Technology, 2012
- · Ranked  $5^{th}$  in AUTRONIC (national competition of electronic circuits design), 2012

## **PUBLICATIONS**

· M. Pezeshki, S. Gholami, A. Nickabadi, "Distinction between features extracted using Deep Belief Networks", is submitted to ICLR2014.

#### RESEARCH EXPERIENCE

#### Research Intern

at Cyber Space Research Institute (CSRI)

summer 2013

- · Analyzed technical, cultural, and social features and management strategies used in social networks.
- · Implementation of an innovational design of social networks (anonymous social network) and evaluating it with standard criteria.

#### Researcher

at Research Center of Dr. Shariati hospital

2012

· Research on the solutions to improve the surgeons' accuracy in surgery rooms with implementing a novel healthcare system.

#### TEACHING EXPERIENCE

## Teaching Assistant

at Amirkabir University of Technology

· Programming Languages , Prof. Fallah

Fall 2013

Responsibilities included giving lectures and grading.

· Computer Systems Fundamentals, Prof. Shahreza

Spring 2013

Responsibilities included giving lectures, preparing the homework, and grading.

· Design of Algorithms , Prof. Bagheri

Spring 2013

Responsibilities included giving lectures, preparing the homework and projects, and grading.

· Machine Language Programming, Prof. Shahreza

Fall 2012

Responsibilities included giving lectures, preparing the homework and projects, and grading.

## **Teacher**

at State Exemplary School of Emam Sadeq

· Introduction to Programming, C++ Language

2013

For second-year highschool students

· Introduction to Advanced Programming and Algorithm Design, Java Language

2013

For third-year highschool students

## TOP ACADEMIC COURSE PROJECTS

## · Information Retrieval

AUT-Engine: Implementing a static search engine using both traditional Tf-idf method and Semantic Hashing for content-based document retrieval. (Java & Matlab), [Technical Report]

#### · Database Systems

Social Network: Design and Implementation of a social network based on Neo4j (storing relations and graph based information) & MongoDB (storing text based information) (Java, Neo4j, MongoDB)

# · Programming Languages

Developing an interpreter using ML language (using OCaml to implement lex, yacc codes)

## · Design of Algorithms

Implementing a robot path finder using Dijkstra algorithm on the visibility graph of environment. (Java)

MxQuadTree (C++)

# · Machine Language

Developing a previously donminant algorithm for the encription of electronic data called DES. (Mips assembly language)

Implementing Ackermann Function and Analog to Digital Convertor. (Mips assembly language)

# · Advanced Programming

RoboKill: Implementing a simple game named RoboKill(Java)

## OTHER SCIENTIFIC ACTIVITIES

- · Neural Networks for Machine Learning (Online Course, by prof. Hinton, University of Toronto)
- · Machine Learning (Online Course, by prof. Ng, Stanford University)

# TECHNICAL SKILLS

# · Programming Languages & Script Languages

Professional in: Java, .NET languages (C#, ASP, WPF), Matlab, HTML5, CSS3, PHP, JavaEE, Mips assembly

Familiar with: X86 assembly, Android programming

· Database Systems

Professional in: SQL (MySql, SqlServer), Neo4j, MongoDB

Familiar with: Hadoop, HBase

· Frameworks & Tools

Professional in: Weka, Octave, NetBeans, Eclipse, Microsoft Visual Studio, Microsoft SQL server, Microsoft Office programs(word, pp, excel, access), LATEX

Operating Systems

Professional in: Windows, Windows server, Ubuntu

Familiar with: Mac, Suse

## LANGUAGES

· Persian: Native

· English: Professional in Understanding Computer Science context

TOEFL score: 90 (Reading:24, Listening:22, Speaking:19, Writing:25)

GRE score: Quantitative: 167, Verbal: 139, Writing: 2.5

#### REFERENCES

· Professor M.Hassan Shirali-Shahreza

Computer Science Department, Amirkabir University of Technology

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· Professor Ahmad Nickabadi

Computer Engineering and IT Department, Amirkabir University of Technology

Email: nickabadi@aut.ac.ir

· Professor Alireza Bagheri

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