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Iran

Mahtab Farrokh

Undergraduate Hardware Engineering

Interests

Professional

Big Data and Machine Learning , Internet of Things, Graph theory

Personal

Violin, Pottery, Wood Handcraft

Education

2015 - 2019, B.Sc. in Computer Hardware Engineering

Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran
GPA(up to now): 17.69/20 Total Passed Credits: 68

2008 - 2015, Diploma in Physics and Mathematics Discipline

Farzanegan 1, Tehran, Iran (NODET) Attended Iran National Olympiad in
Computer Focused on Combinatorics , graph theory and c++ Programming. GPA: 19.36/20

Honors and Awards

- Ranked top 0.4 % among more than 180,000 students participated in the nationwide entrance examination of undergraduate studies in Iranian universities (2015)
- Semi-finalist at National Mathematics Olympiad (March 2013)
- accepted for 2nd level of Kharazmi awards assessments(2011)
- Member of National Organization for Development of Exceptional Talents (NODET)(2007-2014)

Teaching Experience

- Teacher Assistant, Introduction to Programming, Amirkabir University of technology, Under Supervision of Prof.Bakhshi (Fall-2016)
- Teaching, Introduction to Python, Amirkabir University of technology, (Summer-2017)
- Teacher Assistant, Logic Circuits, Amirkabir University of technology, Under Supervision of Prof.Sedighi, Prof.Sabaei and Prof.Sahebzamani(Fall-2017)

Skills

Programming

- Python 3
- VHDL
- C and C++
- Java
- Verilog

Web and DB Technologies

- Node.js
- MySQL
- mongoDb
- jango
- HTML(Familiar)

Operating Systems

- Linux
- Windows

Typesetting

- \LaTeX
- Vim
- Microsoft Word

Others

- Docker
- Qt
- modelsim
- Eclipse
- IntelliJ
- Pycharm
- Matlab and Octave
- Android Studio

Projects

- computer architecture : Design and implementation of a compiler for SAYEH (Simple Architecture, Yet Enough Hardware) - Python
- computer architecture : Design and implementation of a cache for SAYEH - VHDL
- computer architecture : Design and implementation of a small modular processor, called SAYEH - VHDL
- Distributed Calculator implemented database part using mongoDb and docker - Python
- Data Structure : search engine using inverted index algorithm - Python.
- Data Structure : Finite state machine - Python.
- Logic Circuits : Traffic Light - Verilog.
- Advanced Computer Programming:
 - Implementation of a graphical game with multiplayer support and AI. Computer Player.(Strategic Game) - Java.
 - Implementation of Pacman game - Java.
 - Implementation of Arcade game - Java.

- Principles of Computer and Programming : living cell simulation - C.
- Implementation of Notepad using Qt - C++.
- Wind Tunnel for Educational purpose. Test room dimension 3000 cm^3 .
- Hovercraft modeling for physics workshop. Selected for 2nd level of Kharazmi awards assessment(2011)

Online courses

- Machine Learning by Stanford University Prof. Andrew Ng
- Programming for Everybody (Getting Started with Python) by University of Michigan Prof. Charles Severance

High Grades in undergraduate courses

- Theory of Machines and Languages - Dr. Shahreza - Spring 2017 (20/20)
- Computer Architecture - Dr. Shiry - Spring 2017 (20/20)
- Engineering Statistics - Dr. Amirhaery - Spring 2017 (19.6/20)
- Electronic circuits - Dr. Mazlaghany - Spring 2017 (18.93/20)
- Design of Algorithms - Dr. Mousavi - Spring 2017 (17.24/20)
- Data Structures & Algorithms - Dr. Dehghan - Fall 2017 - (20/20)
- Logic Circuits - Dr. Sedighi - Fall 2017 - (18.9/20)
- Electric Circuits - Dr. Khorsandi - Fall 2017 - (18.5/20)
- Advanced Computer Programming - Mr. Poorvatan - Spring 2016 - (18/20)
- Principles of Computer and Programming - Dr. Bakhshi - Fall 2015 - (20/20)

Extra-Curricular Activities

- Elected as member of Students Scientific Chapter(SSC), CEIT Department, Amirkabir University of Technology (Tehran Polytechnic)- 2017
- Member of Execution Committee, 9th National AUT Linux Festival - Spring 2017
- Member of Execution Committee, 8th National AUT Linux Festival - Spring 2016
- Member of Execution Committee, 17nd International AUT ACM ICPC - Fall 2017
- Member of Execution Committee, 16nd International AUT ACM ICPC - Fall 2016
- Member of Execution Committee, 1st Data Mining Cup DMC - Fall 2017

References

- Professor Bahador Bakhshi, Assistant Professor
Computer Engineering and IT Department, Amirkabir University of Technology
Email: bbakhshi@aut.ac.ir
- Professor Masoud Sabaei , Associate professor
Computer Engineering and IT Department, Amirkabir University of Technology
Email: sabaei@aut.ac.ir
- Professor Siavash Khorsandi , Associate professor
Computer Engineering and IT Department, Amirkabir University of Technology
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