

# Masih Ariani

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## Education

- 2010–2015 **B.Sc. in Computer Engineering**, *Shiraz University*, Shiraz, Iran.  
last two-year GPA: 17.02/20
- 2010 **University National Entrance Exam**.  
Ranked among top 2% of participants
- 2005–2009 **Diploma in Mathematics and Physics**, *Tohid High School*, Shiraz, Iran.  
Cumulative GPA: 17.73/20

## Research Experience

- 2015 **Ethernet Switch Simulator**.  
A simulator of a four-port 10Base-T Ethernet Switch was implemented. The project is written in Verilog and is Synthesizable. Therefore it can be converted to a bitFile and run on a FPGA board.  
Basic features of a standard Switch included in the implementation and it's integrity verified via Xilinx ISE Simulator. The project was done under supervision of Dr. Mansoor Zolghadr Jahromi
- 2014 **Pulse Detector with one threshold**.  
It's a Module written in Verilog Language that is able to detect and count pulses embedded in background noise. The approach is to detect and count the rising and falling edges of the pulses within noises. Since the code is synthesizable, I was able to test it on a Spartan-III Xilinx FPGA board and worked properly. This module can be used in real applications such as Network Switches, LAN Cards, Doppler Ultrasound, Telecommunication and RADAR systems. As an assignment of FPGA Lab as an elective course. Instructed by Dr. Reza Sameni.
- 2014 **Classification using a Decision Tree Learning Algorithm**.  
After testing and learning about many related Algorithms, By using IRIS DataSet, an ID3 Decision Tree was implemented. In this project, the accuracy of 96% was achieved for classifying any new input data.
- 2013 **Astroids Game**.  
The popular Astroids game coded in Python. Having acceleration, Velocity and collision is considered in this implementation. The game has sound and a little animation using GIF images. As the final project of *An Introduction to Interactive Programming in Python* course by Coursera.
- 2011 **Snake Game**.  
The popular Snake Game was coded in C Language. Implemented in three different modes.(SinglePlayer, MultiPlayer and AgainstComputer). Single and Multi player modes covers the basic rules and features of the standard game. In the third mode, An Algorithm is implemented so that it tries to defeat it's human opponent. As the final project of C programming course. The 3<sup>rd</sup> rank was achieved among all student in this project.

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## Experience

2014 **Internship**, *Signal Processing Center*, CSE Dept. of Shiraz University.  
In a total of three months, Worked on two different projects (subjected on FPGA, Android).  
In this period, the main focus was to learn essential skills of working in a project-base career.  
All was done under the supervision of Dr. Reza Sameni

Online Course **Introduction to programming with MATLAB**, *Coursera*.  
(92%)

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## Teaching Experience

2015 **Shiraz University**, Teaching Assistant for Computer Architecture

2014 **Shiraz University**, Teaching Assistant for Digital Design

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## Languages

Persian **Native**

English **Fluent** TOEFL iBT: 102/120 (R:25, L:27, S:23, W:27) GRE: (V:143, Q:159, A.W:3.0)

German **Beginner**

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## Technical Skills

Programming Languages Java, Python, C, MATLAB, Verilog

Miscellaneous Client-Side Web designing,  $\text{\LaTeX}$

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## Professional Activities

- **One of the Main crew of TEDxShirazUniversity**

For the first time in Shiraz University, we will hold *TEDx* in August 2016. Main crew consists of 8 people including me. My current responsibility is to manage Media and commercial services.

- **BreakTime in University**

A three-day program containing large number of workshops for about 300 high-school students which has been held by students of Shiraz University for 9 years until 2015. I was able to participate both as a crew member and leader of different preparation committees in four distinct years.

- **Member of Ceremony and Tourism Committee**

13<sup>th</sup> convocation of Iranian Universities' Foreign Students (2015)

- **Advertiser and Photographer of a health care NGO**

In a two-week period at *Tomb of Hafez*, our team held a gallery, presenting the handcrafts made by little children who were having cancer. The earnings of the gallery was given to where they were hospitalized. So that it could be used mainly for their medical costs and providing new facilities for the hospital. (2012)

- **Udu player**

Our music band had couple of plays for closing-ceremony of 20<sup>th</sup> Annual International Iranian Mechanical Engineering Conferences (*ISME2012*)