Arghavan Zibaie

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Education

Sharif University of Technology — *Tehran, Iran*

Bachelor of Science in Electrical Engineering — *2016 - Jan 2021*

GPA: 3.73/4.00-17.67/20.00

Abureyhan Highschool — *Tehran, Iran*

PRE-UNIVERSITY (CERTIFICATE AND HIGHSCHOOL DIPLOMA IN MATHEMATICS AND PHYSICS) — *Fall 2011 - Fall 2016*

GPA: 4.00/4.00

Achievements

- **Ranked 63th in National University Entrance Exam for Bachelor Degree among 200,000 competitors**
- **Ranked 39th among 162 students in Sharif University of Technology's Electrical Engineering Department**
- **Member Of Iran's National Elites Foundation**

Research Interests

- **Machine Learning, Neural Networks**
- **Game Theory and Applications**
- **Parallel and Distributed Computation**
- **Signal Processing**

Experience

Teaching Assistant, Logic Circuits — *Dr. Mohammadzade*

Lab Assistant and guiding students about circuit design and coding — *September 2018 - January 2019*

Teaching Assistant, Computer Architecture — *Dr. Movahedin*

Lab Assistant and guiding students about coding and simulating with ISE and Modelsim — *January 2019 - June 2019*

Teaching Assistant, Object Oriented Programming — *Dr. Hashemi and Dr. Vahdat*

Programming Homework designing and assessing — *January 2020 - July 2020*

Executive Manager, NeuroScience Symposium — *Webpage*

Managing crews and preparing site of Symposium — *Winter 2019*

Selected Academic Projects

simulation of first price auction with stable matching and efficient mechanisms

Game Theory Course Project

- **Simulation of hospitalization auction of covid-19 patients based on their probability of death ,the time they should spend in hospital , their insurance type and their station of disease . This auction had been simulated based on 2 different mechanism (stable matching and efficient mechanisms) and some different probability parameters too. Under supervisions of Dr. Mirmohseni and Dr. Ashtiani**

Single Cycle and Multi Cycle Implementation

Computer Architecture Course Project

- Single cycle and Multi cycle implementation of MIPS architecture, in Verilog, under supervision of Dr. Movahedeen

IMDB Data Analysis

Probability and Statistics Course Project

- Exploring the database of imdb movies , working with statistical parameters and test, estimating imdb score, in Matlab, under supervision of Dr. Maddahali

Minesweeper Game

C Programming Course Project

- Minesweeper game with c language with all features of main game under supervision of Dr. Rivade

Checkers Game

Java Programming Course Project

- Checkers game with java language and with graphic features with java FX with all features of main game under supervision of Dr. Hashemi

Finding nearest neighbor distance histogram (with GPU)

Parallel Programming and Architectures Course Project

- Analysis distance of 10000 data with 128 dimension from 1000000 data with same number of dimension and finding histogram of these distances with GPU for each query under supervision of Dr. Hashemi

Voice Recorder and real-time pitch shifter

FPGA/ASIC Systems Design Course Project

- Building a voice recorder that records and plays back 8-bit digital audio samples, in Verilog, under supervision of Dr. Haj-Sadeghi

P2P Channel Simulator

Data Networks Course Project

- Designing and simulating peer to peer channel and define its routing protocols with socket programming , in Python, under supervision of Dr. Pakravan

PCIe and DDR2 SDRAM Controller Simulation in ISE

Computer Interface Circuits Course Project

- Simulating PCI Express and DDR2 sample codes in ISE and analyzing transactions base on their standards, in Verilog, under supervision of Dr. Movahedeen

Object Recognition in Images with Keras and Tensorflow

Machine Learning Course Project

- Implementing CNNs through a calssification task on CIFAR-10 dataset using Keras Library, under supervision of Dr. Salehkaleybar

Designing KDC for safe communication in LAN

Cryptography and Network Security Course Project

- Designing and simulating a safe KDC protocol that is immune from replay attack and analyzing and implementing all possible attacks on this protocl base on possible attacks on Dolev-Yau channel with Avispa/Span, under supervision of Dr. Mirmohseni

Database Optimization

Bachelor Project

- Designing and optimizing a database model for traffic data, under supervision of Dr. Gholampour

Selected Courses

Fundamentals of Programming: 19.7/20	Dr. Rivade
Probability and Statistics: 18/20	Dr. Maddahali
Java Programming: 20/20	Dr. Hashemi
Python Programming Lab: 18.8/20	Dr. Hashemi
Parallel Programming and Architectures: 18.9/20	Dr. Hashemi
FPGA/ASIC Systems Design: 18.5/20	Dr. Haj-sadeghi
Signals and Systems: 17.9/20	Dr. Behrouzi
Computer Architecture and Microprocessor: 20/20	Dr. Movahedeen
Data Structure and Algorithm Analysis: 18/20	Dr. Salehkaleybar
Data Networks: 17.5/20	Dr. Pakravan
Machine Learning: 18.6/20	Dr. Salehkaleybar
Game Theory: 18.4/20	Dr. Mirmohseni and Dr. Ashtiani
Cryptography and Network Security: 17.5/20	Dr. Mirmohseni
Logic Circuit: 19/20	Dr. Mohammadzade

Computer Skills

Programming Languages

- C/C++, Python, JAVA, Assembly

Circuit Design Languages and Programs

- Verilog, Altium Designer, PSPICE, HSPICE, Proteos, Model-sim, Xilinx ISE

Web Development

- HTML, CSS, JS, FLASK, MYSQL, MongoDB

Assembly and Micro-controller

- MIPS, AVR, ARM, x86, Arduino

Linux

- Bash Scripting

Documentation

- LATEX, Microsoft Office

Others

- MATLAB

Language Skills

Persian: ●●●●●
English: ●●●●○
Arabic: ●●○○○