Sajjad P. Savoji

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EDUCATION

University of Tehran

Bachelor of Electrical Engineering , Major in Communication Systems , Minor in Computer Engineering
September 2016 - Present

- Cumulative GPA: 17.36 / 20

SELECTED COURSES

Advance Programming Data Structure Digital Signal Processing Introduction to Computer Systems and Programming Statistics and Probability Communication systems Digital Communication Systems Linear Algebra Linear Control Systems Linear Control Systems Lab Digital Logic Design Lab

KEY SKILLS

Programming Languages

- C++ (advance)
- C (advance)
- Python
- HTML5
- Java Script
- CSS
- Bootstrap
- System Verilog and VHDL (advance)

Platorms

- Matlab simulink & toolboxes such as FDA-tool
- Hardware simulators: Modelsim , Quartus
- Circuit simulators: Multisim
- Micro controller simulators: Proteus,Codevision
- latex

Micro processors

- FPGA
- Raspberry Pi 2,3
- Arduino
- AVR atmeg series

AWARDS AND ACHIEVEMENTS

- 3^{rd}place in Iran and 93^{th} place worldwide in IEEExtreme 11.0 from 2121 teams. participated as team "PointBlank".
- 8^{th} place in Iran and 733^{th} place worldwide in IEEExtreme 12.0 from 3358 teams. participated individually as team "SAVOJI".
- gold medalist basketball player in inter university sport competition festival 2016 and silver medalist in 2017 also gold medalist in inter city of Tehran student sport competition 2014

ACADEMIC PROJECTS

AP Drive *September 2018 - January 2019*

- A File Hosting Service inspired by Drop Box using C++
- Allows multi-user synchronization , file sharing as group and individual , file management,upload and download and storage management for root and admin users. All features are accessible both local and through the net.
- this project was implemented by Object Oriented and multi-file methodology
- phase1: Program works similar to linux file system. Implemented locally and without graphical features.
- phase2: User interface implementation based on Client-Server distributed model by using web tools.

Smart House *Jun 2018 – August 2018*

- IOT based project tested on a wooden home prototype using mostly python and java
- By use of a raspberry pi as central gateway of sensor communications , home daily activities such as opening door, powering lights and watering flowers was done automated.
- then raspberry interacted through HTTPS and MQTT protocols with a simple android app. as raspberry had massive computation capacity , vital warnings could activate edge computing services such as Fire extinguisher.
- all sensors data was stored in thingtalk.ir platform and allowed us to provide user with cloud computing services such as graphs and data conclusions

Kingdom Rush *September 2018 - January 2019*

- a real time tower defense game implemented by Simple DirectMedia Layer(SDL) graphical library using C++
- the goal of this project was practicing Top-Down design programming methodology
- this project was implemented by Object Oriented and multi-file methodology

Online Store *September 2018 - January 2019*

- modeling a virtual store to manage trades and transactions of goods using C++
- this project was implemented by Object Oriented and multi-file methodology
- The app provided user with special features such as discount offers , receipts and searching for different features of goods such as price , kind ,etc.

git *October 2016 - November 2016*

- a simple distributed version-control system for tracking changes in source code during software development which basically works similar to linux git using C
- working with multi dimensional pointers and dynamic memory allocation was the goal of project.

Encryption *June 2017 - July 2017*

- encrypting short text symbols in color values of pixels using C++
- text characters was placed in pixels which had the most variance among it's neighbor pixels

Noise removal *January 2018 - February 2018*

- removing noise of a .wav file using matlab
- first noise was detected and removed by Fourier analysis then using matlab FDA tool a more efficient filter was designed which removed noise perfectly.

Frequency Spectrum Analyzer *January 2019 - February 2019*

- A real time frequency spectrum analyzer using C and avr atmeg series
- Surrounding voice was sampled using avr ADC then using Fast Fourier Transform algorithm , frequency spectrum of voice was shown in a led array.
- To assure that hardware was working fine ,sampled data was transmitted to laptop using avr USART and frequency spectrum was double checked in matlab.

EXPERIENCE

Vice Chair of IEEE University of Tehran student branch

April 2018 - present

- The Student Branch Vice-Chair is the junior Executive Officer. He/she should help the Branch Chair with the workload, oversee some of the subcommittees, and manage some of the activities throughout the semester.

IEEExtreme 12.0 ambassador **International volunteer work**

April 2018 - November 2018

- IEEEXtreme is an annual hackathon and competitive programming challenge in which teams of IEEE Student members compete in a 24-hour time span against each other to solve a set of programming problems
- An ambassador job is to encourage students to participate the challenge

IEEEmadC ambassador **International volunteer work**

April 2018 - November 2018

- IEEEmadC (Mobile Applications Development Contest) is an international contest organized by volunteers for IEEE student members across the globe. The main goal is to educate and encourage students to pursue their future career as mobile application developers
- An ambassador job is to encourage students to participate the challenge

MEMBERSHIPS

September 2017 - present

- IEEE student member