Mohammad Mahmoodian

Curriculum vitae

WORK EXPERIENCES

MARCH 2020

Freelance

Software Development

Real-time people counting for video stream, with help of computer vision and deep learning. Smart implementation of object detection and object tracking.

AUGUST 2020

Freelance

Software and Hardware Development

Programming a nordic nRF52840 Soc to capture data from an OSRAM Opto Semiconductor (SFH7070). Developing an app in Android Studio to communicate with the nRF through the BLE and display the captured data.

SEPTEMBER 2019 - PRESENT

PAD Lab, UTSTPark, Tehran, Iran Blockchain Development

Working on popular cryptocurrency source codes (i.e. Bitcoin, Ethereum, TON, Neo, etc.) at PAD (Processing and Analysis Data) lab under the supervision of Mahsan Co. in the UTSTPark (University of Tehran Science and Technology Park).

MARCH 2019 - SEPTEMBER 2019

Datis, Tehran, Iran

Hardware Development

Hardware programming for STM32 Arm Cortex MCUs and development of elevator drives at Datis Elevator.

February 2017 - Present

MCS Lab in the University of Tehran

Software Development and Research Assistance

Working on Linux-based operating systems (e.g., OpenWrt) and installing them on Wi-Fi routers. Development of IP networking and DNS applications

JANUARY 2018 - JANUARY 2019

Farineh Fanavar, Tehran, Iran Software Development

Implementing IoT protocols (e.g., Zigbee) and working on smart grids using new interesting technology, blockchain, and smart contracts. Working with tools such as truffle and Geth (Go Ethereum) for test and simulate smart grids at Farineh Fanavar.

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- www.github.com/momaee

PROJECTS

2020 OpenCV

Implementing a real-time people counter using OpenCV, SciPy, etc. in Python language programming.

2020 Android Studio

Developing an app in Android Studio in Java programming language to connect to a device through BLE and display received data.

2020 Nordic nRF

Working on Nordic nRF52840 SoC and programming the chip, in C programming language using Keil IDE.

2020 **NEO Cryptocurrency Source Code**Editing NEO client source code in C# programming language.

2020 TON Cryptocurrency Source Code

Editing TON (Telegram Open Network) client source code and adding some features to it (e.g. writing data onto CassandraDB, Neo4jDB, LevelDB, etc.).

2019 **Geth**

Working on Go-Ethereum (official Go implementation of Ethereum protocol) and adding some features to it.

2019 STM32 Discovery Kit

Embedded devices programmer. MCU programming in Keil.

2018 Smart Contracts

Writing smart contracts using solidity and hyperledger sawtooth. using web3 Restful api in Python and JavaScript to connect to blockchain. Backend programming in solidity and frontend programming in JavaScript and Python.

2018 **Zigbee**

Implementing Zigbee protocol on XBee modules using Keil. C and C++ programming.

2017 **OpenWrt**

Installation of OpenWrt on routers.

EDUCATION

2017 - Present **Electrical Engineering**

Network Communications

MASTER OF SCIENCE *University of Tehran*

GPA: 18.8 Rank: 1

2013 - 2017 Electrical Engineering -

Communications

BACHELOR OF SCIENCE *University of Tehran.*

GPA: 18.4 Rank: 8

SELECTED COURSES

Pattern Recognition ($\frac{19.2}{20}$) Data Networks ($\frac{20}{20}$)

Advanced Programming $(\frac{18}{20})$ Distributed Optimization $(\frac{19}{20})$

Stochastic Processes $(\frac{19}{20})$ Cellar Networks $(\frac{20}{20})$

SOFTWARE AND HARDWARE SKILLS

GOOD LEVEL Python, OpenCV, NumPy,

SciPy, Scikit-learn, MNIST, SVM, Go, Solidity, C, C++, C#, Java, Android Studio, git, Cryptocurrency, Linux, Restful APIs, IP Networking, Matlab, Neo4j Database, LevelDB, Cassandra Database,

MongoDB

INTERMEDIATE Hyperledger, LETEX, LabVIEW,

Keil, ModelSim, Quartus, Wireshark, shell, AVR, Verilog,

HTML, JavaScript

BASIC LEVEL Windows, Microsoft Word,

PSpice, HSpice

COMMUNICATION SKILLS

Persian Native speaker

ENGLISH Good

REFERENCES

Dr. Behnam Bahrak

POSITION Assistant Professor

School of Electrical and Computer Engineering

University of Tehran **Dr. Vahid Shahmansouri**

POSITION Assistant Professor

School of Electrical and Computer Engineering

University of Tehran **Dr. Masih Nilchian**

POSITION Chief Technology Officer

MyPulses Co.

Dr. Babak Nadjar Araabi

Position Professor

School of Electrical and Computer Engineeri University of Tehran