Mohammad Siavashi

Personal Data

Place and Date of Birth:	Ilam, Iran | 6th April 1996
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Work Experience

April 2018 – August 2018
Python Developer at Ertebat Gostar Sobat (EGS) Tehran, Iran

2017 - 2018
Member of Shiraz University Business intelligence (BI) project team
Worked as Java Spring Developer in Shiraz University Business intelligence (BI) project. The project is still in development phase.

2016 - 2017
Android Developer at Iranian System Ara, Tehran, Iran
Worked as an Android developer in Iranian System Ara. The project released for inter-company usages.

2016 - 2017
Security Researcher at Dade Pardaz Shargh (DPE), Tehran, Iran
Security researcher and c++ security software developer
Malicious software and web attacks are becoming more and more threatening every day, so we have been studying threats scenarios and analyze malware to develop a more a secure environment to be deployed in Banks systems to protect users.

2008 - 2012
Co-Founder of Persian Gamers Forum and Magazine
Co-Founder of the professional PGF games news agency, forum, market, and magazine. The magazine was the 1st professional e-magazine about video games in Iran. The site in no longer available.

Education

2014 - present **B.Sc** in Computer Engineering, **Shiraz University**, Shiraz, Iran
2010 - 2014 **Diploma** in Physics and Mathematics, **Mottahari high school**, Ilam, Iran

Research Interests

- Blockchain
- Security
- Parallel Computing & GPGPU
- Algorithm & Reliability

- Machine Learning
- Image Processing & Computer Vision
- FPGA

Selected Projects

2014 **Forth Language Interpreter (Github)**
Python
Educational Forth language interpreter is written as the first project in Python. The project is available on GitHub.

2014 **Rack OS (Github)**
ANSI C + x86 Assembly
Rack OS is an operating system built to serve as educational development environment written based on James Molloy tutorial with a simple file system to get developers started. the purpose of this operating system is teaching and learning how to develop an operating system for enthusiasts. The project is available on GitHub.

2014 **Lisa OS (Github)**
ANSI C & x86 Assembly
An Educational operating system is written on top of the Rack OS, including MIPS Assembly Compiler also written purely in ANSI C. The project is written by me & my teammate and is also available on GitHub.

2015 **Operating System & Drivers (Github)**
x86 Assembly
Operating System with sound, keyboard and mouse drivers implemented purely in X86 Assembly with a simple calculator and piano application installed. The project was written by me & my teammate and is also available on GitHub.

2016 **Version Control**
Java + JavaFX
Client/Server version control desktop application using java and javafx.

2016 **Shiraz University Self-Service Reservation Hybrid Mobile Application**
React Native
Self-Service reservation mobile application for shiraz university for both IOS and Android devices. the applications are not available now.

2017 **New Algorithm for Perfectly-Secure Multiparty Computation based on BGW (Ben-Or, Goldwasser and Widgerson) Protocol (Github)**
Python
In the setting of secure multiparty computation, a set of n parties with private inputs wish to jointly compute some functionality of their inputs. the context of this project is that each party can resolve a polynomial without knowing each other input hence decrypt messages. the project is available on GitHub.

2017 **Optical Marker Recognition (OMR) System with Statistical Data Analysis System for INME Institution, Tehran, Iran**
Python + openCV
Developed and deployed high accuracy OMR system to scan multiple choice exams with statistical data analysis system to produce high accuracy result and guidance for each individual. The institution was holding university entrance exams for medical students.

2017 **DES Encryption on FPGA (SPARTAN 6) (Github)**

Verilog

DES encryption/decryption implemented on Xilinx Spartan 6 FPGA. The project is available on GitHub.

2018 **E-Commerce Platform**

Python + Flask

Fully featured e-commerce platform written in python & flask for EGS company, Tehran, Iran.

2018 **Unibid Auction Platform**

Python + Bootstrap + Vue.js

An auction platoform written in Python, Bootstrap, Vue.js and Socket.io

2018 **Vesta E-School Platform (fa / en)**

Node.js Backend

Vesta is a country-first E-Education platform that has been released as both Mobile & Web applications and has been used by wide range of educational institutions including schools since release.

2019 **Ethereum Blockchain Platform(Github)**

Node.js + Vue.js

The platform named Wallthereum is a secure web application which performs as a doorway to the Ethereum blockchain. It allows users to manage their fund without a centralized platform. Wallthereum is developed with security and scalability in mind under the supervision of Dr. Farshad Khunjush and it is completely open source.

2019 **Wallthereum for Android (Github)**

Android - Java

Wallthereum for Android is the Android Application for Ethereum Blockchain Platform. The application is highly secure as it neither stores data to any centralized platform nor sensitive data on mobile itself. It is also completely open source and designed under the supervision of Dr. Farshad Khunjush.

Conference Presentation

"An algorithm to assess t-signature," The 3rd Seminar on Reliability Theory and its Applications, Department of Statistics. Ferdowsi University of Mashhad, Mashhad, Iran, May 2017.

Conference Proceedings

"An algorithm to assess t-signature," With S. Zarezade in Proceedings of Reliability Theory and its Applications Conference, Ferdowsi University of Mashhad, Mashhad, Iran, May 2017.

Publications

"An Algorithm for computing the t-signature of two-state networks," With S. Zarezade Submited to Quality Technology and Quantitative Management. (arXiv)

Teaching Assistantships

Fall 2018	**Principle of Programming (C Language)** *Dr. Ali Hamze*
Spring 2018	**Advanced Programming (Java & Software Design)** *Dr. Ali Hamze*
Spring 2018	**Computer Network Lab** *Dr. Koorush Ziarati*
Fall 2017	**Advanced Programming (Java & Software Design)** *Dr. Ali Hamze*

Awards & Honors

2011	Ranked **2**nd in province in the 2nd English Conference of Ilam, Ilam, Iran.
2014	Selected as **1**st Best Python Project Among all Course Students.
2015	Ranked **1**st Student in Principle of Programming Course with 100% Score.
2015	Selected as **1**st Best Project in Principle of Programming Course.
2015-2016	Selected as Member of Computer Department Science Forum at Shiraz University

Languages

Persian:	Mothertongue
English:	Full professional proficiency
Arabic:	Native proficiency
Kurdish:	Mothertongue

Skills & Experiences

1. Python 2 & 3
    - Flask
    - Django
    - OpenCV
    - SQLAlchemy
    - Socket.io
2. Java EE
    - JavaFX
    - Gson, Jackson
    - Web3j
    - Spring Boot

    - Hibernate
    - Jetty
    - Netty
    - Apache Tomcat
3. C
4. C++
5. CUDA
6. C#
    - WPF
    - WinForms
    - Linq
7. Android Development (Java)
8. Assembly
    - x86
    - MIPS
9. Javascript
    - Node.js
    - React.js
    - React Native
    - Vue.js
    - Knockout.js
    - Angular.js
    - Angular material
    - Express.js
    - Web3.js
    - Pug.js
    - Mustache.js
10. Ruby
    - Ruby on Rails
11. PHP
    - Laravel
12. Hardware
    - Micro-Controller (AVR ATMEGA 16, ATMEGA 32, ARM Cortex m3 + Arduino)
    - FPGA + HDL Design Techniques (HW/SW Co-design, CORDIC, Piplining, ...)
13. web development
    - Javascript + Frameworks
    - CSS 3

    - HTML 5
    - Bootstrap
    - Bulma
14. Unity Game Engine
    - c#
15. Augmented Reality
    - Vuforia + Unity
    - Wikitude + Unity
    - ARToolkit + Unity
    - EasyAR + Unity
    - Maxst + Unity
16. Database-related
    - SQL
    - Sequelize
    - MySQL
    - MongoDB
    - PostgreSQL
    - SQLite
    - Redis
    - Mongoose
    - Room (Android)
17. Scientific/Documentation Tools
    - Matlab
    - LaTeX
18. Version Control
    - Git
    - Mercurial
19. Penetration Testing & Reverse Engineering
    - Network
    - Web application
    - Android application
    - Desktop application
20. UML
21. ERD
22. OOP Design Patterns (Gang of Four)

Interests and Activities

Technology, Programming
Poem, Psychoanalysis, Reading
Swimming, Travelling

Refrences

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