

Shervin Fallahnejad

EMBEDDED HARDWARE/FIRMWARE DEVELOPER · ELECTRONICS EXPERT

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"Some titles are hyperlinks. You can click on them for further information."

Education

Semnan Azad University (SIAU)

B.Sc. IN INDUSTRIAL ENGINEERING - INDUSTRIAL PRODUCTION

Semnan, Iran

Sep. 2004 - Exp. May. 2010

Skills

Electronics

Altium Designer, LabView, PSpice, Keil uVision, MPLAB, MikroC, MikroBasic, MikroPascal, HT-IDE3000(Holtek), PlatformIO, ESP-IDF, Proteus, Bascom, CodeVision

Mechanics

SolidWorks, AutoCad

Programming

C/C++, Basic, Pascal, Visual CSharp, Visual Basic, Java, .Net MAUI

GUI

Qt, HTML, CSS, JS

Platform

Microcontroller, Linux, Windows, Android, IOS, macOS, Commodore 64

DevOps

Bash, git, cmake

Experience

ITD Software and EPOS Solutions

SOFTWARE & HARDWARE ENGINEER

Manchester, UK

Mar 2022 - Present

- Development and modification current software (VB6 Source Code) to support new generation Scanner/Scale in EPOS related industries.
- Development a cross-platform solution for Android, IOS and Windows applications based on Microsoft .NET MAUI framework with CSharp and XAML.
- Design and development an embedded hardware for voice over internet protocol (VoIP) private branch exchange (PBX) system for use as a network caller ID (NCID) and calls/messages management.

YAMA Electronics

CO-FOUNDER & ELECTRONICS DESIGN ENGINEER

Tehran, Iran

Sep 2020 - Present

- Producing home appliances electronic boards, such as kitchen hood, oven, stove timer, etc. Working with different companies in whole country (Iran).

Unalink Co.

ELECTRONIC DESIGN ENGINEER

Tehran, Iran

Apr 2020 - Sep 2020

- Designed a Remote Terminal Unit (RTU) to enable information exchange between physical power grid and distributed control system.
- Developed a web-server to communicate data from web to RTU on STM32.

Ovio Smart World - Smart Home and Office Automation

SOFTWARE & HARDWARE ENGINEER

Tehran, Iran

Nov 2019 - Feb 2020

- Design and development a hardware based on ESP32, as a connected IR blaster.
- Implement and development a file system for ESP32.

Samsson Group

SOFTWARE & HARDWARE ENGINEER

Tehran, Iran

Apr 2019 - Sep 2019

- Development and modification an IoT Platform project on Github.

Fara Fan Faraz Tadbir

SOFTWARE & HARDWARE ENGINEER

Tehran, Iran

Sep 2015 - Sep 2016

- Design and development of poultry farming environmental control system
- Monitoring and control of industrial refrigeration system.

Experience (contd.)

Tosan Rahvar - Design and Production of Electronic Switches

SOFTWARE & HARDWARE ENGINEER

Tehran, Iran

Aug 2013 - Present

- Design and development of touch control switch for kitchen hood.
- Design and development of elevator touch button.
- Design and development of oven controller.

Negaresh Rayaneh Pouya (NRP)

SOFTWARE & HARDWARE ENGINEER

Tehran, Iran

Sep 2014 - Sep 2015

- Design and development of industrial oil and gas electric actuator.
- Design and development of Pilatus PC-6 Porter altimeter.
- Design and development of boost converter 6v to 19v 3Amp.

NoAvaran Tajhizat Imen Bargh (NATIB)

SOFTWARE & HARDWARE ENGINEER

Tehran, Iran

Aug 2013 - Feb 2014

- Design and development of electronic grounding system.
- Design and development of fluorescent electronic ballast.

Kimia Behsanj

SOFTWARE & HARDWARE ENGINEER

Tehran, Iran

Aug 2013 - Present

- Designed and developed a hardware based on PIC32, as a tensile machine controller.
- Implemented and developed tensile machine software in CSharp.
- Implemented a bootloader in CSharp software to remotely upgrade hardware.

Gaam Electric - Welding & Cutting Equipment

ELECTRONIC DESIGN ENGINEER & FIRMWARE DEVELOPER

Sari, Iran

Nov 2011 - Mar 2013

- Designed and developed a GUI and hardware as a HMI for TIG 500A welding machine.
- Designed and developed a database on PIC32 to handle lots of data related to welding machine.
- Implemented a software in CSharp to communicate with a hardware for test welding machines operations.

Extracurricular Activity

Amirkabir University of Technolog - Robotic Institute

MEMBER

Tehran, Iran

Nov. 2011 - Feb 2012

- Design and development of a hardware to control rescue robot.

Honors & Awards

INTERNATIONAL

2012 **Finalist**, Amirkabir University of Technology Robotics & Artificial Intelligence Festival & 4th National Kharazmi Robotics Competitions

Tehran, Iran

2010 **3rd Place**, Isfahan University of Technology Robotics Competitions

Isfahan, Iran

Projects

Minimal LED Floor Lamp

PERSONAL

Tehran, Iran

2020

- Self-learning capability
- Touch control
- Anodized aluminium profile

Monitoring and Control of Server & UPS Rooms Environmental Parameters

NATIONAL RESEARCH INSTITUTE FOR SCIENCE POLICY OF IRAN

Tehran, Iran

2020

- Monitoring and control using a Web-Server.
- Linux OS on a Raspberry Pi.
- BLE temperature & humidity sensors.
- Monitoring all UPS's parameters using SNMP.
- Universal IR blaster to control A/C.
- Call and SMS in case of CRITICAL conditions.

Projects (contd.)

Monitoring and Control of Industrial Refrigeration.(Poultry Cold Storage)

Tehran, Iran

FARA FAN FARAZ TADBIR

2020

- Monitoring and control using a Web-Server.
- Linux OS on a Raspberry Pi.
- DS18B20 1-Wire temperature sensors in a mesh network.
- Tiny self designed UPS to keep system alive in power failure.

Design and Development of Touch Control Switch for Kitchen Hood

Tehran, Iran

TOSAN RAHVAR

2019

- Capability to record and play voice messages on kitchen hood.
- LED display.
- Temperature and gas sensors.
- IR remote control.
- Switching power supply.

Design and Development of Elevator Touch Button

Tehran, Iran

TOSAN RAHVAR

2019

- I2C protocol.
- Unique address for each button.
- Touch sensitivity up to 5CM.
- RGB LED indicator.

Design and Development of Oven Controller

Tehran, Iran

TOSAN RAHVAR

2018

- Linux OS on a NanoPi Fire2A.
- 7" Touch display.
- Nice GUI implemented using Qt.

Design and Development of Touch Control Switch for Kitchen Hood

Tehran, Iran

TOSAN RAHVAR

2018

- 16 WS2812 RGB LEDs.
- Temperature and gas sensors.
- IR remote control.
- Switching power supply.

IoT Platform Development

Tehran, Iran

SAMSSON GROUP

2018

Infrared Heating Panel

Tehran, Iran

PERSONAL

2017

- Make an conducting ink using graphite and other chemical materials.
- 85°C on 12V, 4A Input.
- It had cracks in the structure and need some improvement... .

Design and Development of Poultry Farming Environmental Control System

Tehran, Iran

FARA FAN FARAZ TADBIR

2016

- 7-Segment display.
- PIC18 series as a core processor.
- DS1307 RTC.
- Sensirion SHT21 temperture & humidity sensor.
- Sensirion pressure sensor.
- RS485 protocol.
- Aviculture algorithm.

Design and Development of Industrial Oil and Gas Electric Actuator

Tehran, Iran

NEGARESH RAYANEH POUYA

2015

- ATEX certification
- Multi-turn capability inching/positioning and on/off
- Wedge, Knife, Sluice/weir, Diaphragm, Conduit/slab, Parallel slide, Globe, Choke, Butterfly, Ball, Plug, Damper can be installed.
- 250 actuators on Rayabus specific network are fully under control and also Modbus and Profibus.
- Configuration and calibration without need to open actuator panel.

Projects (contd.)

Design and Development of Pilatus PC-6 Porter Altimeter

Tehran, Iran

NEGARESH RAYANEH POUYA

2015

- Broadcom Avago Dot-Matrix display.
- PIC18 series as a core processor.
- Pressure sensor.
- Stepper motor.

Design and Development of Boost Converter 6v to 19v 3Amp

Tehran, Iran

NEGARESH RAYANEH POUYA

2014

Design and Development of Injection Machine PLC

Tehran, Iran

PISHRO POUYESH

2014

- Linux on CubiBoard mini computer.
- PIC32 IO control board with LAN interface to CubiBoard.

Design and Development of Electronic Grounding System

Tehran, Iran

NOAVARAN TAJHIZAT IMEN BARGH (NATIB)

2013

- Protect against spark in explosive gas atmospheres.
- Based on Op-Amps.

Design and Development of Fluorescent Electronic Ballast

Tehran, Iran

NOAVARAN TAJHIZAT IMEN BARGH (NATIB)

2013

- Protect against spark in explosive gas atmospheres.
- 2-Channel.

Implemented Value Engineering - Material Substitution Model

Sari, Iran

GAAM ELECTRIC - WELDING & CUTTING EQUIPMENT

2012

Developed and Implemented a Database on MCU Flash

Sari, Iran

GAAM ELECTRIC - WELDING & CUTTING EQUIPMENT

2012

- Save and load lots of parameters with its own attributes with ease.

Developed and Implemented USB HID Bootloader on PIC32MX460F512L

Sari, Iran

GAAM ELECTRIC - WELDING & CUTTING EQUIPMENT

2012

Design and Development of Welding Machine Control Panel

Semnan, Iran

GAAM ELECTRIC - WELDING & CUTTING EQUIPMENT

2011

- PIC18 series as a core processor.
- 128x64 GLCD

Design and Development of Liquid Level Monitoring In A Large Tank

Semnan, Iran

PERSONAL

2010

- Atmel AVR Atmega8 as a core processor.
- Ultrasonic.
- LPT communication to computer.
- Use of MATLAB for data analysis.

Work with a Fingerprint Sensor

Behshahr, Iran

PERSONAL

2009

- Transfer data on RS232 protocol.

Design and Development of Stroboscope for Extruder Machine Blade Calibration

Behshahr, Iran

BEHPAK INDUSTRIAL CO.

2009