# Hamid Najafi

# Product Manager, Embedded System Specialist

#### **ABOUT ME**

Embedded System Specialist with established experience in the Industrial Automation and Healthcare industries.

Skilled in PCB Designing, Microcontrollers, Electrical CAD, Electrical Panels, Design Review alongside Linux System Administration, DevOps and Networking.

This CV summarizes my seven years of practical experience in software, hardware, and IoT solution development for academic and commercial applications. For more information, please visit my personal website

If you are looking for a dedicated Embedded System Developer with a great technical background, exceptional problem-solving skills and a collaborative mindset, please don't hesitate to connect with me

#### **WORK EXPERIENCE**

# Embedded System Design Specialist

Feb 2021 - Present

#### C1Tech Group

- Lead in the design, development, and implementation of the Operating Room and Cleanroom electrical systems.
- Manager of multiple teams at various places across the country
- Skills: Team Leadership · Industrial Internet of Things (IIoT) · Electrical Panels & Wiring · Modbus · PCB
   Design · RTU · HMI · Embedded Linux · Microcontrollers · Qt/C++

### Hardware Development Manager

Jun 2019 - Present

#### **FUMP-ICT**

- Shareholder and Vice Chairman
- Affiliated with Ferdowsi University of Mashhad Pishgaman Holding
- Skills: Project Manager · PCB Design · DC Circuit Design · Firmware Development (C/C++) · Embedded Linux · Troubleshooting

### Product Manager & DevOps Engineer

Apr 2020 - Feb 2021

#### Department of Education (Khorasan Razavi, Iran)

• Skills: Team Leadership · Linux System Administrator · Cloud · DevOps · Containerization · LDAP SRE · BigBlueButton · Grafana · Prometheus.io · Traefik · C# (ASP.NET)

# **Embedded System Developer**

Jan 2016 - Dec 2020

#### Ferdowsi University of Mashhad

- Incorporating student initiatives and various projects in university labs as part-time work.
- Described in EDUCATIONAL EXPERIENCE section.

# Teaching Assistant

Sep 2017 - May 2020

# Ferdowsi University of Mashhad

Assistant of Computer Foundation and Programming (Dr.Asadi), Computer Networking (Dr.Mohajerzadeh), Network Security (Dr.Ghaemi), and Wireless Networks (Dr.Hosseini)

Lecturer of Internet of Things Basics Course (with Dr.Sedaghat)

- Designing projects and assignments for students
- · Providing support for helping students in their issues
- Scoring and marking assignments

# Internship - ICT Network Technician

Jun 2018 - Aug 2018

#### HiWeb (Vodafone Iran Partner)

- 3G/4G network driver test using TEMS™ Network Testing Portfolio
- Network monitoring using Zabbix
- Several tasks of passive network engineer
- Worked with Mikrotik RouterOS

# **Educations**

- Master of Science, 2021-Present IAUM, Computer Networks Master's thesis: Design & Evaluation of a Tightly Coupled UWB/INS/GIS Indoor Positioning System Applying Machine Learning Methods in CloudIoT. GPA: 19.50/20
- Bachelor of Science, 2015-2020
   FUM, Computer System Architecture
   Bachelor project: Development of
   Cryptocurrency Mining Rig Energy
   Monitoring System.
   Major GPA: 18.05/20
   Overall GPA: 16.39/20
- Diploma, 2011-2015
   Allameh Tabataba'i. Mashhad
   Mathematics and Physics
   GPA: 19.76/20

## **Skills**

Operating Systems

Expert in Linux and Embedded Linux

Programming Languages

C/C++, C#, and Bash Scripting (Most experienced)

Printed Circuit Board

Experienced in Altium Designer Expert in PCB assembly (SMD & DIP)

MCU and SBC

Experienced in ESP32 and STM32 (ARM) and also NVIDIA Jetson, Raspberry Pi, and Beagle Bone SBCs

DevOps and SRE

Experienced in Git, CI/CD, Containers and Orchestration, Automation tools, Metrics, Tracing, and Logging Systems

Wireless Networking

Experienced in computer network and security IEEE Wi-Fi, Bluetooth, Zigbee, and LoRaWAN

Web Developer

Familiar with ASP.Net with HTML, CSS, JS background



#### **EDUCATIONAL EXPERIENCE**

Embedded System Developer - Development of Cryptocurrency Jan 2020 - Dec 2020 Mining Rig Energy Monitoring System

#### FUM IP-PBX Lab

Software Programming: C# (ASP.Net Core API Based) with PostgreSQL Database Board Design: 2-Layer PCB

Board Specs: ESP32 Core, Current & Voltage Measurement, ADC, AC to DC, RTC, EEPROM, Relay Based on: Blynk IoT Platform (On-premises)

# Embedded System Developer - Operating Room UVC Disinfection System

May 2020 - Apr 2020

# **FUM Robotics Lab**

Embedded Board: NodeMcu, UVC Lamps Power Circuit, AC to DC Converter Based on: Blynk IoT Platform (On-premises)

# Designing and Optimizing of Campus LoRaWAN & Wi-Fi Networks

Jun 2019 - Feb 2020

# FUM Information & Communication Technology Center (ICT)

- Tools: Ekahau Site Survey, GNS3, iPerf, Chirpstack
- Board Design: 2-Layer PCB
- Board Specs: ESP32 Core, RN2483, RFM95

# Executive Committee of the 16th International ISC

Aug 2019 - Aug 2019

#### Ferdowsi University of Mashhad

- Information Security and Cryptology Conference
- Speaker at Information Security and Cryptology Village

# Lead Project Manager - IoT Hotel Managment System

Jun 2017 - Jul 2019

#### Ashian Startup - Co-Founder

System Administrator: Windows Server-based, QGIS

Software Programming: ASP.Net Framework and Razor pages with Microsoft SQL Server Boards Specs: 2-Layer PCB with STM32L, Zigbee mesh, audio, touch-key, ultra-low power design

# Embedded System Developer - IoT Gateway

Jan 2019 - May 2019

# **FUM IoT Lab**

- Software Programming: C# (ASP.Net Core API Based)
- Database: Microsoft SQL Server
- Board Design: 2-Layer PCB
- Board Specs: STM32F7 Core, RTC, SD Card, USB, 2G, LoRa, Zigbee, Ethernet, Wi-Fi, CAN, nRF (C++)

# Embedded System Developer - IoT Call and SMS module

Oct 2018 - Feb 2019

# IoT based Call and SMS module

- Embedded Boards: STM32F4 Discovery, NodeMcu, SIM800 (C++)
- Software Programming: HTML, CSS, JavaScript

Application Developer - Monitoring of Burnt Chandelier Lights Jan 2016 - May 2017 FUM Pattern Recognition Lab

- Device: Samsung Gear S3
- Platform: Tizen (C++)

Certifications

- Building Automation using KNX Protocol -Feb 2018 from "Iran Technical & Vocational Training"
- PCB Designing Dec 2017 from "College of Ferdowsi University of Mashhad"
- GNU/Linux Foundation Apr 2017 from "FUM LUG Association"

# Strengths

- Excellent leadership, communication and time management abilities
- Strong cooperation and partnership skills in job environment
- Outstanding planning and multi-tasking abilities
- Proven ability to work creatively along with problem-solving skills
- Talented to acquire new skills and develop team members
- Adaptable, diligent and capable of working autonomously when necessary
- Remarkable to make choices in difficult situations

Tehran 25/03/2023

