Shahrokh Karami [shah-rok]

Senior Electronics Designer

Email: mail@shahrokh.me
Portfolio: shahrokh.me
Mersin / Turkey

Profile

Senior Electronics Designer with 17+ years of experience in hardware development, embedded systems, and product-level engineering. Delivered 10+ commercial products and numerous R&D projects, covering schematic design, PCB layout, prototyping, testing, and production support. Equally effective taking full ownership of the product lifecycle or collaborating within multidisciplinary teams.

Recent Experiences

Electronics Designer @ Technoscope, R&D Center of Mersin | technoscope.com.tr

April 2024 - Present | Turkey | Full-time, On-site

Delivering end-to-end embedded product development for multiple client companies, from design to production support.

Key achievements:

- Reduced product size through optimized schematic and PCB layout
- Improved GPRS network registration speed through firmware optimization
- Extended battery life via low-power architecture redesign and power profiling
- Collaborated with backend teams for API development
- Collaborated with mechanical teams to deliver fully functional prototypes
- Developed production test tools and Python automation scripts
- Upgraded AC motor switch from mechanical relays to triacs
- Boosted DC motor driver performance by implementing drivers with lower internal resistance and optimizing the soft-starter
- Migrated products to BLDC motors

Technologies: CAN • Git • STM32 • KiCad • SolidWorks • Altium Designer • GNSS • Simulation…

Personal Project 3 - End-to-end MVP - Connected Carry Case for LOOP Earplugs - GitHub

Personal Project 2 - Full product cycle - Battery caring device - YouTube

Personal Project 1 - From idea to MVP - Internet watchdog plug - YouTube

Embedded Systems Designer @ Ronash Smart Home Ltd. | saveriasmarthome.com

May 2020 - April 2023 | Iran | Full-time, Hybrid

Developed firmware for commercial smart home products, improving connectivity and UX.

Technologies: ESP32 • FreeRTOS • C++ • Python • RS485 • BLE • FOTA • TCP/IP socket…

Embedded Systems Designer @ I-ROAST Cafe Equipment Group | iroast.ir

July 2018 - March 2020 | Iran | Full-time, On-site

Designed hardware and firmware for commercial smart coffee roasting systems.

Introduction video on YouTube

Technologies: WiFi • Power Electronics • Raspberry Pi • Python • K type temperature sensor…

Quality Assurance Technician @ EsfehElectric | esfehelectric.ir

Jun 2015 - Jun 2018 | Iran | Full-time, On-site

Designed production test equipment and supported quality assurance for household appliances.

Technologies: CorelDraw • C • AVR • CodeVisionAVR • Altium Designer

Embedded Systems Designer @ Shiraz Metropolis Municipality | shiraz.ir

November 2013 - May 2015 | Iran | Full-time, On-site

Developed hardware and firmware for municipal vehicle tracking systems.

Technologies: GNSS • GSM • C • AVR • CodeVisionAVR • PHP • Altium Designer • TCP/IP socket..

Core Skills

Embedded Systems Multilayer PCB Design
Power Electronics
Low-Power System Design
Wireless Communication
Wired communication
EMC / EMI Design Principles
Simulation
Prototyping & Validation
Production Support
Lab hands-on skills

Tools & Technologies

Altium Designer - KiCad
STM32, ESP32, Nordic nRF
Embedded C/C++ - FreeRTOS
Oscilloscope - Logic Analyzer
SDR - SWD Debugging
GSM / LTE Modems
GNSS positioning
Segment & TFT LCDs - Git
LTspice - PSpice

Cross-functional Knowledge

SolidWorks 3D design
Linux server administration
mySQL database
Python, JavaScript, PHP
iOS/android application development
Slicers and SLA/FDM printers
API development
Socket programming
Networking Fundamentals

Qualification and Awards

• Electronics Associate Degree - ZAB Statement of Comparability
• 2 Innovative Electronics Design Awards
• 1 Patent Registration

English: C1 - IELTS Certified
Persian: Native