ALLAADIN YIGITLER

Embedded Software and Electronics Developer

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Electronics and embedded systems developer with around 10 years of hands-on experience in hardware and firmware development. I have worked on various projects involving microcontrollers (such as STM32 and ESP32), PCB design (2 and 4 layers), and embedded C/C++ programming. I enjoy solving technical challenges and contributing to the development of reliable and efficient electronic products.

Work Experience

A-YIGITLER.TECH 2025 - FUTURE

- Working independently, I provided customized hardware, software, and IoT solutions to meet client needs. support.

Mert Software & Electronics - Electronic R&D Team Leader 2016 - 2025

- I started working at Mert Software as a technician in 2016. I worked on machine installation, testing, and on-site support.
- Between 2018 and 2021, I joined many local and international projects. I visited customer factories and completed installations and system setups. These projects helped me improve my technical and communication skills.
- In 2021, I moved to the R&D department. I supported product design, development, and testing processes.
- In 2023, I became the R&D team leader. I managed new product development, guided the team, and helped with project planning and design improvements.

BBC SECURITY - Electronic Technician 2014 - 2015

- Low-current cabling and commissioning for security cameras
- Working with different camera types and recording devices
- Optimizing image quality and controlling system operation
- Completed projects in security camera systems

ENELSA INDUSTRIAL ELECTRONICS - Electronics Technician Intern 2011 - 2012

- Created electronic circuit blueprints based on technical specifications.
- Tested and repaired PCBs using multimeter and basic tools.
- Worked on R&D projects for electronic devices.
- Assembled and soldered SMD (0805, 0402,BGA) and DIP components by hand.
- Used reflow oven and hand soldering for PCB assembly.
- Inspected and fixed soldering issues on PCBs.
- Experienced with PCB prototyping using Positive 20 spray and iron method.
- Good understanding of electronic components and circuit design.

Projects

IOT ELECTRONIC CONTROL CARD WITH ARTIFICIAL NEURAL NETWORKS BASED PROCESS MONITORING

Using STM32 AND ESP32. Depending on the ANN model, the IOT control card that transfers the server via WIFI, which ensures the control and accuracy of the process data depending on the digital signals received by the machine. .**(Inventions & Registrations)**

ESP32 AND TFT LCD (LVGL) AIR QUALITY MEASUREMENT AND REPORTING SYSTEM

ESP32 with displays the air quality data it receives from certain sensors using the LVGL lcd library and transfers it to the cloud server via Wifi.

STM32 GENERATING FLOW DEPENDENT MANUFACTURING PROCESS DATA WITH ARTIFICIAL NEURAL NETWORKS

To determine whether the machine is producing according to the data received from the WC1700 non-contact current measurement sensor.**(Inventions & Registrations)**

VACCINE CABINET MONITORING SYSTEM (ESP32 ,LAN8720)

The temperature data of the vaccination cabinet can be saved to the server and sd card via wifi or Ethernet. .**(Inventions & Registrations)**

INDUSTRIAL IO CARD

For MES (Manufacturing Execution System) Systems, it communicates data from sensors such as npn, pnp, encoder with rs232. It is an IO card that converts data from the field into meter, stop, running.

MODBUS RTU OUTPUT CONTROL BOARD

20 Units were used to activate or deactivate machines located at different points (cost reduced with stm8)

LORAWAN(STM32WLE5) MODULE AND DATA COLLECTIONOVER MODBUS

Communication using lorawan gateway and lorawan(stm32wle5) module and data collection over modbus.

Certificates

- ARM Microcontroller Applications - STM32-csystem 2014-2015
- Altium Designer 2 and 4 layer circuit design
- Innovation and Innovative Thinking Training
- BIGDATA Technologies and Applications' and 'IoT and Industry 4.0' Training

Skills

Languages & Tools: C, C++, Python, C#, HTML, CSS, JavaScript

Embedded Development: STM32, ESP32, PIC16, PIC18F, AVR, STM8

IDEs & Frameworks: STM32CubeIDE, PlatformIO, Arduino IDE, MPLAB, LVGL, FreeRTOS

Communication Protocols: I²C, SPI, UART, RS485, Ethernet, TCP/IP, UDP, MQTT, Modbus

PCB & Circuit Design: Altium Designer, Proteus, EasyEda,SOLIDWORKS,AUTOCAD INVERTOR

Portfolio/Youtube: www.a-yigitler.tech

https://www.youtube.com/@A-YIGITLER-TECH

Soft Skills

- Analytical Thinking
- Problem Solving
- Teamwork & Communication
- Hardworking & Self-Motivated
- Time Management

Volunteer Experience

- Designed and prototyped electronic circuits
- Performed SMD soldering and component assembly
- Read and interpreted electronic component datasheets
- Knowledge of common electronic components and functions
- Using Agile and Scrum methodologies
- Used Git for version control
- Built electronic prototypes for testing and validation
- Created basic 3D models using SolidWorks for enclosures and mechanical parts

Education

Akdeniz University - Electrical and Electronic Engineering 2012 -

Antalya Anatolian Industrial Vocational High Sch. - Control & Automation Technician 2008 - 2012