Ege Bilecen

Fullstack Developer & Mechatronics Engineer

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I specialize in software development as a mechatronics engineer. I have done a variety of work in various fields, such as desktop programming, embedded programming, web development, and mobile development, using various programming languages. Because of this, I am quite quick to adapt to new projects and new programming languages.

EDUCATION

MEng in Electronic and Computer Engineering (IoT Major)   **2023 – 2024**

Master's Degree, Dublin City University   Dublin, Ireland

Modules:

- Data Analysis and Machine Learning
- Real-Time Digital Signal Processing
- Wireless/Mobile Communications
- OOP with Embedded Systems
- Connected Embedded Systems
- Network Stack Implementation
- Security for IoT and Edge Networks
- Web Application Development

Mechatronics Engineering   **2017 – 2022**

Bachelor's Degree, Erciyes University   Kayseri, Turkey

GPA: 3.13 / 4.00

SKILLS

- C
- C++
- C#

- Python
- Rust
- Lua

- PHP
- Javascript
- HTML / CSS

KNOWLEDGE

- Embedded Programming
- Socket Programming
- Image Processing
- Cryptography
- Linux
- Linux Kernel Dev.

- MySQL
- NodeJS
- ReactJS
- Xamarin
- Tauri
- ROS

- Chrome Extension Dev.
- Webview Applications
- Windows Forms
- Dear ImGui
- Qt
- Git

PROFESSIONAL EXPERIENCE

bionluk   **Oct 2018 – Oct 2022**

Freelance Software Developer   Turkey

- Software development in C++, C#, Python, PHP, and Javascript based on customer requests.
- Desktop GUI application development in Qt and Windows Forms.
- Website development using HTML/CSS, Javascript and PHP.
- Completed more than **70** commissions.

LANGUAGES

- **Turkish:** Native
- **English:** Professional Proficiency
- **Japanese:** Elementary Proficiency
- **Chinese:** Elementary Proficiency

PROJECTS & INDIVIDUAL WORK

Linux Kernel Development
- Misc. character device implementation in C and Rust.
- Kernel customization and compilation.

Home Automation with Mesh Network
- System design of the mesh network.
- Design of the communication infrastructure between nodes, server, and user.
- User application UI design and software development using Xamarin.
- Embedded programming of microchips to communicate with sensors.

Unmanned Aerial Vehicle (Drone)   **Mar 2021 – Sep 2021**
                                                                              Turkey

- Electrical system design of the UAV.
- Calculations to select appropriate parts of the UAV, such as batteries, propellers, and motors, based on requirements.

I worked on this project when I attended the TUBITAK International Unmanned Aerial Vehicle Competition 2021.

Unmanned Aerial Vehicle (Drone) & Model Satellite   **Nov 2019 – Sep 2020**
                                                                              Turkey

- Wrapping the MAVLink protocol implementation.
- Autonomous movement implementation of the UAV using the MAVLink protocol.
- I2C and SPI sensor implementations.

I worked on this project when I attended the TUBITAK International Unmanned Aerial Vehicle Competition 2020 and the TUBITAK Model Satellite Competition 2020.

Unmanned Ground Vehicle   **Feb 2019 – May 2020**
                                                                              Turkey

- Telemetry implementation of the UGV.
- Camera data transmission implementation of the UGV.
- Image processing for tracking via detecting entities such as humans, objects, etc.

My projects and work are **not** limited to these. More can be found in my portfolio and on GitHub.

REFERENCES

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