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#
- Java

- Python
- Rust
- Lua
- PHP

- Javascript
- HTML / CSS

KNOWLEDGE

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

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- NodeJS
- ReactJS
- Xamarin
- Tauri
- ROS
- Selenium
- Java Spring

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

PROFESSIONAL EXPERIENCE

Freelance Software Developer

Oct 2018 - Oct 2022

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

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 <u>portfolio</u> and on <u>GitHub</u>.

REFERENCES

Burak Gorbil

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