



# Patryk Mielech

Junior .NET developer

I have finished my education at WUT with the graduation in Electrical Engineering. Previous experience has allowed me to grow as an Engineer of embedded systems in fields of HMI, responsive UI and microcontroller software application. During studies I have grown my knowledge about Human-machine interface which allowed me to design responsive and effective operations interfaces. I am currently looking for a position that would allow me to develop new .NET solutions with my skills.

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## EDUCATION

### Master of Electrical Engineering Warsaw University of Technology

02/2023 - Present

Specialty

- Embedded Systems
- HMI design, .NET, LabView

### Inżynier of Electrical Engineering Warsaw University of Technology

10/2019 - 02/2023

Specialty

- Embedded Systems
- LabView, Matlab, Python

## WORK EXPERIENCE

### Junior Embedded Software Developer IFS Polska Sp. z o. o.

03/2022 - 12/2023

Pruszków, Mazovia

[R&D] Development and integration of battery storage systems - covers battery management system design, power converters and laboratory testing.

Achievements/Tasks

- Responsible for the development and bug fixes of the Battery Diagnostic Application. Improved application stability and communication performance. Utilized WPF and .NET technologies,
- Responsible for the application development and bug fixes of the Discharge Control Application. The app allows the integrator to control a group of microcontrollers. Utilized the OOP, MVVM concept and Rest API,
- Added new features and debugged multiple issues in the microcontroller RTOS application, resulting in a decrease in system downtime and an increase in recognition of the faulty boards,
- Enhanced developer productivity by developing Python scripts for testing peripherals of the BMS microcontroller, ensuring reliable data storage and streamlined testing processes,
- Enhanced firmware updater script, resulting in a decrease in bus-type errors and increase in stability during the update process, ensuring more reliable product performance and higher customer satisfaction.

## SKILLS

C#

Python

C

.NET

WPF

ASP.NET

Entity Framework

AVALONIA

XAML

REST API

LINUX

GIT

SQL

## PERSONAL PROJECTS

### CANapp

- Developed the cross platform application utilizing the AVALONIA .NET framework,
- Application allows to connect with serial CAN device,
- Developed proper read/write functions,
- App can read specific messages from the car internal bus.

### Request Service - under development

- Developed application to scrap the data from various gym sites and store the specific membership information under the SQL database
- Utilized the ASP.NET and REST API to create the service for scrapping
- Included the MVC concept

## ACHIEVEMENTS

### Application for energy expo

Developed new visualisation screen for application which lead the company to show it at energy expo presentation,

### Engineer 4 Science 2023 Best Thesis Competition Award

Honorable Mention for Rectifying Antenna as the Entropy Source for Random Number Generator on STM32 Microcontroller

## LANGUAGES

Polish

Native or Bilingual Proficiency

English B2

Professional Working Proficiency

## INTERESTS

Electronics

Guitar