Łukasz Błaszczyk

Warsaw | lukemech.org | admin@lukemech.org | 731 746 825
LukeMech | 30954953/LukeMech

Work Experience

12.2025 – now

DCX Liquid Cooling Systems | *R&D Automation Engineer*
Developing server cooling solutions - such as FDU v1, v2, and RDHX units. Integration with facility systems using BMS.

- Creating electrical schematics (EPLAN, SW Electrical)
- PLC Programming (Siemens TIA Portal, Beckhoff in CodeSys)
- Designing HMI (WinCC, Web HTML)
- Working with CAD SolidWorks
- Work scheduling, supervision of commissioning and hardware assembly (automation/electrical side)
- Migration of existing automation systems to other manufacturers' solutions at the lowest cost

06.2024 – 11.2025
Mińsk Mazowiecki, Poland

Fabryka Urządzeń Dźwigowych S.A. | *R&D Electrical/Automation Engineer*
Working with devices from leading manufacturers of industrial automation, electrical installations, and remote control equipment, such as Siemens, ABB, Danfoss, Schneider Electric, IDEC, SEW, Ditel, Stego, Akerstroms, HBC-Radiomatic, Pepperl+Fuchs, Telemecanique, Wieland, Igus, and Kübler.

- Creating electrical schematics (SEE Electrical Expert)
- PLC Programming (Siemens TIA Portal, ABB Automation Builder)
- Configuration of inverters (Danfoss, Schneider Electric, and ABB)
- Working with CAD Solid Edge
- Compiling full technical documentation for various types of cranes and delivering it to clients
- Preparing and submitting technical documentation to UDT/TDT for certification processes

07.2023 – 08.2023

MEDCOM Sp. z o.o. | *Production Support Worker*

09.2022 – 10.2022

MEDCOM Sp. z o.o. | *Production Support Worker*

06.2022 – 07.2022

MEDCOM Sp. z o.o. | *Production Support Worker*

01.2022
Warsaw, Poland

MEDCOM Sp. z o.o. | *Production Support Worker*
Technologically advanced domestic company specializing in the production of electrical cabinets for public transport vehicles, including trains and Solaris buses.

- Cable preparation, soldering, and cabinet wiring
- Reading electrical schematics and diagrams
- Protecting printed circuit boards (PCBs) at the lacquering station

04.2023
Italy

🌎 **Erasmus+** | *Foreign Internship*

- Improving English language skills
- Working with mechatronic devices
- Expanding knowledge of electronic systems and programming
- Working with Arduino-based platforms

Education

10.2024 – now
Warsaw, Poland
Engineer (B.Eng.)

📖 **Warsaw University of Technology** | *Mechatronics of Vehicles and Construction Machinery*

After completing three semesters of this demanding course, I can confidently state that I have significantly deepened my knowledge of mechatronics.

- Developed skills in reading, analyzing, and interpreting complex technical drawings and engineering schematics, which are the foundation of effective mechanical and electrical design.
- Expanded knowledge of mechanical engineering by studying key theoretical issues such as dynamics, materials science, and structural analysis, while applying these principles in lab work and projects.
- Co-authored the open-source project dynpy, collaborating with other programmers on code improvement and solving complex issues (one of my assigned tasks available here).
- Gained practical experience using MATLAB for technical calculations and data analysis.
- Demonstrated CAD proficiency, basing on previous Solid Edge experience while exploring SolidWorks.
- Played an active leadership role as co-owner and co-author in the student scientific circle Studenckie Koło Naukowe Pojazdów Niekonwencjonalnych "Admirał", engaging in innovative projects and research concerning, among others, a water bike with a safety cage.

09.2019 – 05.2024
Mińsk Mazowiecki, Poland

🟥 **Technical High School No. 2 (ZSZ nr 2)** | *Mechatronics*

Technical high school with a mechatronics profile, providing solid foundations in automation, robotics, and electronics. During my education, I acquired a wide range of practical skills and theoretical knowledge, finishing with positive results in vocational qualifications and the Matura exam, confirming readiness for higher education or professional work.

- Graduated with distinction, reflecting commitment, high academic results, and proficiency in key subjects.
- Completed vocational module ‘ELM.03 – Assembly and operation of mechatronic systems’, gaining practical experience in building, testing, and diagnosing mechatronic assemblies.
- Completed module ‘ELM.06 – Programming and operation of mechatronic devices’, which equipped me with skills in programming and operating various mechatronic devices, including embedded control systems.

Courses

06.2025
Wrocław, Poland

👨‍💻 **Polish PLC Programming Championships** | ***Edition VII***

The PLC Championships is a prestigious national competition promoting excellence in PLC programming, connecting academic and industrial environments, and identifying top talents in industrial automation. I competed in OPEN and Expert categories, working on Siemens PLCSpace (TIA Portal), LOGO!, and Finder/Arduino platforms with OPTA and Fatek controllers. The competition allowed me to develop and refine industrial automation programming skills in a demanding, competitive environment.

03.2025
Warsaw, Poland
Łódź, Poland

😎 **Hackathon (Econverse) | *Link* | *Our solution***
Participated in a hackathon challenge organized by Kozminski University, focusing on automation and optimization of recruitment processes using intelligent systems. Our team developed an innovative solution named *LockIn AI-Based*, utilizing AI techniques to increase recruitment efficiency. Our approach stood out for creativity and practical application, winning first place. This experience strengthened my competencies in programming, teamwork, and applying AI to real-world problems.

10.2024
Brenna, Poland

🛠️ **4Better Automation Course | *Certificate***
Comprehensive course aimed at deepening technical knowledge and practical skills in industrial automation. Topics included drive systems and motors by SEW-Eurodrive, sensor technologies and communication solutions by Pepperl+Fuchs, as well as high-performance polymer components and cable carrier systems by Igus. The course provided valuable information on modern automation elements and their integration in industrial processes.

06.2024
Wrocław, Poland

👷 **Polish PLC Programming Championships | *Edition VI* | *Group photo***
Competed in OPEN and Master categories using Siemens Horizon (TIA Portal), LOGO!, and Finder/Arduino with OPTA controllers. The event was a valuable learning opportunity and a platform for networking with other participants and industry professionals.

2023

🇬🇧 **English Proficiency Certificate (C1) | *Certificate***
Achieved an advanced level of English proficiency, confirmed by a C1 certificate according to the Cambridge English Scale methodology. This document attests to my ability to communicate effectively in professional and academic contexts, demonstrating a high level of fluency and comprehension.

Skills

🌍 **Languages**
Native 🇵🇱 Polish with full fluency, complemented by advanced knowledge of 🇬🇧 English at C1 level. My bilingual skills allow for effective communication in an international environment, both in speech and writing, supporting collaboration and professional contacts.

08.2023

🚗 **Driving License: Category B**
Beyond the formal document, I am passionate about vehicles, which increases my mobility and flexibility in private and professional life.

🦾 **Industrial Automation**
Experience in creating automation solutions using tools from companies like Siemens (TIA Portal), ABB (Automation Builder), WAGO (in CodeSys), Arduino (PlatformIO and PLC IDE), and Fatek (WinProLadder). Designing and programming HMI interfaces on Siemens WinCC, IDEC, and ABB platforms, utilizing HTML for web control, remote access, and diagnostics.

⚡ **Electrical Design**
Proficiency in SEE Electrical Expert (IGE+XAO), EPLAN, and similar tools used in electrical engineering. I seamlessly create schematics, connection drawings, and BOMs.

⚙️ **Embedded Systems Programming**
Execution of projects on microcontroller platforms ESP, Arduino, and STM32. Programming in embedded C/C++, peripheral integration, and real-time system design with a focus on reliable and efficient solutions.

PCB Design
Used KiCad to create printed circuit boards (PCBs), covering schematics, layout, and generating production BOMs. Knowledge of the full design process, from concept to production documentation.

Microsoft Software
Fluent operation of Microsoft Word, Excel, and PowerPoint, backed by experience gained in various projects and workplaces. I comfortably use the Office suite for document creation, data analysis, presentation preparation, and project support. Additionally, knowledge of PowerApps software and experience creating applications in this environment during collaboration with SpinBit.

Programming
Knowledge of several programming languages, mainly Python and C++. Experience in software development processes, including version control using Git. I create web and mobile applications, integrate software with hardware, and solve algorithmic tasks. Additionally, good knowledge of Linux family systems and containerization software (e.g., Docker).

Databases
Good knowledge of NoSQL databases (e.g., MongoDB), used occasionally in my projects. Knowledge of basic SQL concepts and structures, though I prefer working with structures like JSON, which I consider more intuitive and flexible in my work context.

Game Development
Practical experience in game development within the Unity engine and its scripting environment. Designing gameplay mechanics and user interfaces.

Projects

2023 – now **Website** | ***Link***
Created my own website serving various functions, including hosting my services and tools. The platform also supports firmware update distribution for several of my hardware projects, ensuring a central place on the web.

12.2024 – now **SmartPrzyczepka** | ***Closed Source*** | ***Summary***
Project based on ESP32C3 microcontroller and ESP-IDF framework, used for controlling outputs in a camping trailer via buttons. The system improves interaction with the electrical installation, enabling automation and remote control.

10.2024 **Video Encoder** | ***Code***
Video encoder project aimed at standardizing codecs and formats, and additionally reducing file sizes. Users can fork the repository, run the GitHub Actions workflow, provide a video link, select settings, and automatically execute encoding using ffmpeg.

03.2023 – now **AlphaLED** | ***Project:*** ***Old - ESP8266*** / ***New - ESP32C3*** | ***Summary***
Wi-Fi controlled LED matrix project based on ESP microcontrollers, with an 8x8 diode grid and multiple functions available via a web interface. Combines advanced hardware with user-friendly control, offering practical and interactive lighting solutions.

02.2024 **AI Radio** | ***Code*** | ***discontinued***
Automated MP3 radio that selects and plays music using algorithms. Project concluded, but allowed for developing skills in integrating calculations with playback and server management.

11.2023 🗺️ **DogLog | *App* | *Closed Source* | *discontinued***
Mobile Android application for registering and monitoring pet activity and making contacts. Includes features for tracking walks, feeding, vet visits, and reminders, supporting pet care and owner integration.

10.2023 🏀 **BounceTales-based Game | *Game* | *Closed Source* | *discontinued***
Created an engaging 2D game based on Nokia BounceTales, utilizing Unity and C#. The player controls a bouncing ball through increasingly difficult levels with obstacles. Focused on intuitive controls, realistic physics, visual effects, as well as scoring mechanisms and interface.

03.2023 🗣️ **Voice Assistant | *Code* | *discontinued***
Voice-controlled assistant on Raspberry Pi with advanced features. Enables music control via voice commands, conversations with AI chatbot based on GPT, and monitoring sugar levels through connected medical sensors. Project combines speech recognition, synthesis, data collection, and AI dialogue, providing multi-functional convenience and health support. Built in Python.