

PATRIK (ZSOLT) HAJDÚ

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EDUCATION

Budapest University of Technology and Economics

Sep 2023 - Present

BSc in Computer Science Engineering, Specialization in Software Engineering

- Awarded University Scholarship for outstanding academic performance (80%+ average).
- In focus Backend architecture, AI-driven automation, and building scalable web applications.

BMSZC Petrik Lajos Bilingual Technical School

Sep 2019 - Jun 2023

High School Diploma, Specialization in Informatics

- Average grade is above 85% in all subjects.

WORKING EXPERIENCE

Automation Developing using AI

Jan 2026 - Present

Company: **Rocket3D** - Employment type: **Project-based work (ad hoc)**

- Architecting a custom WordPress plugin for automated 3D printing price calculation, integrating dynamic file parameter analysis.
- Developing a backend automation system to streamline the "Order-to-Print" workflow, reducing manual administrative overhead by ~40%.
- Designing an admin panel for batch processing and automated printer queue management.

System Administrator & Web Developer (React framework)

Apr 2025 - Jan 2026

Company: **Hajdú Közmű Kft.** - Employment type: **Part-time**

- Engineered and deployed the company's official responsive website using React, TypeScript, and Tailwind CSS, significantly improving digital presence.
- Managed the internal IT infrastructure, ensuring 99.9% uptime for business-critical systems.
- Implemented SEO best practices and optimized site performance for mobile devices.

PWS Terminal Operations Manager / Event Staff

Jun 2025 - Aug 2025

Company: **Festipay Zrt.** - Employment type: **Full-time**

- Supervised the deployment and maintenance of 50+ POS terminal systems during high-traffic events.
- Provided technical troubleshooting for hardware and network connectivity issues under high pressure.
- Communication and briefing skills in English and Hungarian.

Website Developer (WordPress)

Dec 2024 - Jan 2025

Company: **Libra Masszázs Szalon** - Employment type: **Remote-time**

- Built a user-friendly, responsive website using WordPress, focusing on a clean UI/UX.

COMPETITIVE SPIRIT

AI and machine learning competition held by BME

- I finished among the **top 3** best solutions. During the task, I developed a "Hive Mind" multi-agent strategy (Java) for urban search and rescue (USAR) simulation.

EuroSkills Düsseldorf 2027

- The project is a comprehensive tool for wind turbine planners, offering digital terrain analysis, interactive placement, and real-time energy yield simulation.

LANGUAGES

Hungarian (Native), English (B2/Professional Working Proficiency).

PROJECTS

Black Jack Game (Java)

- The application features a rich graphical user interface (GUI) built with **Java Swing** and adheres to modern software design principles (**MVC Architecture, SOLID, Clean Code**). Beyond the core gameplay, it includes advanced features like session persistence, historical statistics, and customizable game settings.

Network Monitor App (Java)

- The application captures real-time network traffic using the **Pcap4J** library (*wrapping Npcap/libpcap*) and analyzes packets against a dynamically updated blacklist. When a connection to a malicious IP is detected, the system immediately flags it visually on the dashboard to alert the user.
- The project features a modern **Java Swing GUI**, robust multi-threaded architecture, and enterprise-grade persistent data storage using **Microsoft SQL Server 2022** via Hibernate ORM.

Todo API Tutorial (C#)

- A **Cloud-Native reference implementation** of a Todo List API, architected to demonstrate the power of **.NET Aspire** orchestration and AI integration via the **Model Context Protocol (MCP)**.
- The project bridges the gap between standard Web API development and the new era of "Agentic AI," allowing Large Language Models (like Claude) to directly interact with and control the application logic through a secure, local interface.

INTERESTS

Fitness, Traveling, Practice developing scalable, testable, and automatable applications.

TECHNICAL SKILLS

- **Languages:** C# (.NET), Java (Spring), Python, TypeScript, JavaScript, SQL, NoSQL, C/C++.
- **Web Technologies:** React.js, Tailwind CSS, HTML5, CSS3, REST APIs
- **Tools & DevOps:** Git, Docker, Microsoft SQL Server, MongoDB, Postman, VS Code, IntelliJ.
- **Soft Skills:** Problem-solving under pressure, Adaptive learning, Team collaboration (Agile/SCRUM).