

# JAKUB JURKIAN

Gdańsk, Polska

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## PROFESSIONAL SUMMARY

Aspiring IT Professional and Computer Science student combining a strong **IT Technician background** with modern **Fullstack Development** skills. I bridge the gap between low-level infrastructure (Linux, Networking) and high-level application architecture (.NET, React, Node.js). Dedicated to building scalable systems with clean code and "industrial rigor."

## TECHNICAL SKILLS

**Languages:** C#, TypeScript, JavaScript, Python, PHP, SQL, Bash/Shell.

**Backend & Cloud:** .NET 10 (ASP.NET Core), Node.js, Express.js, Entity Framework, SignalR, Firebase, Docker.

**Frontend:** React, Next.js, Redux Toolkit, Tailwind CSS, Framer Motion, Vite.

**Databases:** SQL Server, PostgreSQL, MongoDB, MySQL.

**Systems & Tools:** Linux Administration, Git (Advanced), TCP/IP Networking, MQTT, Hardware Diagnostics.

## PROJECT EXPERIENCE

**Smart Home Simulator – IoT Ecosystem** | .NET, Docker, SignalR, MQTT 2026

- Designed a complex IoT architecture simulating hardware devices via **TCP server** and **MQTT** protocols.
- Developed a high-performance backend with **ASP.NET Core** and **Entity Framework**, featuring real-time bi-directional communication.
- Implemented comprehensive **Docker** containerization for cross-platform (Linux/Windows) deployment.
- Ensured system reliability with 80%+ test coverage using **xUnit**.

**Temporal Resource Allocation (VeloCity)** | React, TypeScript, Redux 2025

- Engineered a Single Page Application (SPA) for fleet management with a custom **temporal collision detection algorithm**.
- Optimized frontend performance using memoization and lazy loading to handle complex datasets.
- Implemented robust state management with **Redux Toolkit** and role-based access control (RBAC).

**Nodewave Social Network** | Node.js, Express, MongoDB, EJS 2024

- Built a monolithic full-stack application focusing on core web security: authentication, sessions, and data persistence.
- Designed a flexible data schema using **MongoDB** for user profiles, posts, and dynamic interactions.
- Handled server-side rendering (SSR) and routing with **Express.js** and EJS templates.

## EDUCATION

**University of Gdańsk**

B.Sc. Computer Science

Gdańsk, Poland

Oct. 2023 – Present

**Technical School**

IT Technician Diploma (Spec: Systems Admin & Software Dev)

Reszel, Poland

2019 – 2023

- Mastered Hardware Diagnostics, Linux/Windows Administration, and Web development.

## LANGUAGES

**English:** Intermediate (B2+) – Technical documentation & professional communication.

**Polish:** Native.