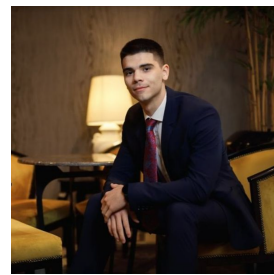# Matei-Ionut Pop

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Junior developer with nearly two years of hands-on industry experience through a long-term internship and a strong portfolio of projects ranging from full-stack applications to competition-grade prototypes. I bring solid practical skills in software development, clean coding practices, and problem-solving. In my internship, I contributed to real production features, collaborated closely with senior engineers, and delivered reliable solutions under tight deadlines. Highly adaptable, proactive, and driven to learn, I aim to bring both technical value and strong teamwork to a fast-paced engineering environment.

SKILLS

Programming languages: Python, C#, C++, JavaScript, MySQL

Frameworks: .NET, React, Entity Framework, REST APIs

Data & Tools: Git, MySQL, Postman, BLE tools, Machine Learning, N8N

Soft skills: Communication, Collaboration, Responsibility, Adaptability

EDUCATION

Master's Degree in Artificial Intelligence for connected industries
Babeş-Bolyai University • Cluj-Napoca • 10/2025 - Present

Bachelor's Degree in Computer Science
West University of Timisoara • Timisoara • 10/2022 - 07/2025

WORK EXPERIENCE

Continental Automotive • 06/2023 - 09/2025
Software Developer

At Continental Automotive, I developed a **C#** application used in the **homologation process of a Mercedes sensor**, helping prove the sensor's reliability under strict automotive standards. I built a Windows desktop app in **.NET (Windows Forms)** to decode **BLE** advertisement packets from TPMS sensors, supporting **burst detection**, **state transitions**, and **live signal decoding**, which was actively used by test engineers for sensor validation. Additionally, I automated a Python-based workflow that **migrated hundreds of gigabytes of test data** to a new platform by restructuring file formats, eliminating the need for manual intervention and significantly reducing developer workload.

PROJECTS

ScanSecure – Automated OCR ID Processor • 10/2024 - 01/2025
NOKIA

Developed a full-stack web application that uses OCR to extract key identity data (name, date of birth, ID number, address) from ID card images and store it securely in a **MySQL database**. Built the frontend in **React** and the backend in **Python**, integrating with OCR libraries and API endpoints.
Impact: Streamlined manual ID verification processes.

BLE TPMS Advertisement Analyzer
Continental Automotive

Built a Windows desktop app in **.NET (Windows Forms)** to decode **Bluetooth Low Energy (BLE)** advertisement packets from Tire Pressure Monitoring System sensors. Supported burst detection, state transitions, and live signal decoding.
Impact: Used by engineers to validate sensor behavior during automotive testing.

ChefAI

Developed a React-based AI application that uses the **Claude 3 Haiku API** to generate recipes based on user-input ingredients. Frontend built in **React + JavaScript**; focused on smooth UX and fast inference

results.
Impact: Turned manual meal planning into a smart, AI-assisted experience.

Hotel Room Management

Created the frontend of a hotel reservation system using **React**, with distinct views for guests and administrators. Integrated booking, room listing, review system, and API connectivity with a **Spring Boot** backend.
Impact: Practiced full UI/UX and component logic in a realistic business app structure.

AI Social Media Automation System

Developed a system that uses **artificial intelligence** to **automate** social media activity across multiple platforms. Leveraging **AI** for **content generation** and response handling, the tool can automatically create posts, reply to messages and comments, and generate stories. It combines natural language processing with scheduling and platform **APIs** to boost engagement and reduce manual effort.

The Adventure Game

Personal Project

Built a custom 2D game engine in **C# using SDL and Silk.NET** with dynamic animation loading, tile-based world rendering, and runtime scripting via **Roslyn**.
Impact: Showcased advanced graphics logic and in-game code execution.

Fullstack WebApp

Personal Project

Demonstrated ability to build full-stack apps by combining **.NET Web API** with a **React frontend**. Implemented RESTful endpoints, state management via hooks, routing, and database persistence using **Entity Framework Core** with SQL Server.
Impact: Proved ability to build modern fullstack applications from scratch, even though project wasn't formally saved.

Story Bridge

Developed an educational platform designed to help children transition from picture books to chapter books by transforming text into AI-generated illustrations. **Built** an automated backend using **n8n** that processes book page uploads, extracts context via **GPT-4o**, and generates high-quality scenes through **DALL-E 3**. Integrated **Supabase** to persist user progress in digital "albums," implementing Row Level Security to ensure private and secure data storage.

VOLUNTEERING & LEADERSHIP

University volunteering

I was actively involved in university volunteering, supporting various academic and social events. This experience improved my teamwork and communication skills while allowing me to contribute to the student community. It also helped me develop a stronger sense of responsibility and initiative.

Water Source Detection Project

Led a 10-person team in developing a location-based app to identify nearby free water sources. Organized the team into subgroups, defined clear objectives, and coordinated execution. The project ranked second in a contest organized for our year group, reflecting strong planning and leadership skills.

CERTIFICATIONS

C1 Cambridge Certificate
Large Language Models (LLMs) Course
Codecademy
Data and Programming Foundations for AI
CodeCademy