Madalina Carcea

About Me

Data Science & AI Engineering student passionate about applying technology to critical domains like cybersecurity and medical engineering. Currently gaining experience in regulatory compliance systems while building expertise in machine learning, computer vision, and secure system development. Strong foundation in Python, AI automation, and full-stack development with a focus on creating impactful solutions for healthcare, security, and safety-critical applications. Seeking opportunities to contribute to meaningful projects that protect people and improve lives—explore my portfolio for detailed project implementations and technical capabilities.

Work Experience

AI Compliance Systems Intern, SNP Natuurreizen B.V

Sep 2025 - Present

- Developed comprehensive legal compliance API system for GDPR and AI Act regulations
- Built FastAPI backend with ChromaDB vector search for semantic analysis of EU legal documents
- Implemented sentence transformer embeddings for intelligent document retrieval and compliance checking
- Integrated n8n workflow automation to serve as mandatory gateway for AI chatbot interactions
- Containerized deployment using Docker with cloud infrastructure for scalable compliance monitoring
- Created custom websites and applications tailored to company requirements and business objectives

Digital Game Developer, AIGENTIC Compliance

June 2025 - Present

- Lead developer for 2D Unity compliance game
- Built with Unity 2D and C# using SpriteRenderer, Tilemap, Animator
- Implemented mechanics, UI, rewards, automated tests

AI Engineer, DeRegt Cables

Oct 2024 - Nov 2024

- Reported on AI system to optimise layered cable designs
- Documented computer vision tools for spiral measurement
- Wrote documentation for Python-Blender automation

Intern, DKG Groep

Jan 2024 - Feb 2024

- Optimised production planning using Python, Excel, GitHub
- Evaluated profitability and accuracy with 4-member data team
- Delivered insights to stakeholders

Education

• Participated in international AI innovation workshops with interdisciplinary teams

Technologies

Programming Languages: Python, C++, C, Java, SQL, PHP, R, HTML, CSS, JavaScript, Bash

Tools & Frameworks: Power BI, ROS, OpenCV, Py-Torch, TensorFlow, PyBullet, PyChrono, OpenAI Gym, Docker, FastAPI, Flask, Scikit-learn, Pandas, NumPy, Jupyter, ChromaDB, n8n

Testing & DevOps: Selenium, Jira, Slack, Agile, Postman, Git, GitHub, VS Code, Azure Machine Learning

Creative Tools: Blender, Unreal Engine, Unity 2D

Languages

Romanian: Native English: Fluent

German: Conversational