

Maletici Miroslav

Software Firmware Engineer • Embedded C/C++ • Applied Machine Learning

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Profile

Software engineer with production experience across embedded firmware, security research and applied machine learning, built at Axon, Bitdefender and Nokia. Founder of a software company shipping StrawBoss, a harvest-logistics platform in production use, and an active instructor in C/C++, Python and cloud technologies. Six national awards for AI, IoT and assistive-technology products taken from idea to working prototype, one of them in discussion for adoption by Timisoara City Hall.

Experience

Software Firmware Engineer Axon	Timisoara, Romania Feb 2026 - Present
- Develop and maintain embedded firmware in C/C++ for connected public-safety devices, across the Linux-based build toolchain, drivers and hardware abstraction layers. - Own features through the full firmware lifecycle: design, implementation, peer review, on-device debugging and release validation, alongside hardware, QA and product teams.	
Founder WiseLearning SRL	Timisoara, Romania Jul 2024 - Present
- Building and shipping StrawBoss (nortiauno.com), a harvest-logistics platform used by farm operators: offline-first mobile app for field crews and a real-time web dashboard for dispatchers. - Designed and delivered computer science curricula in C/C++, Python and Java for high school and university students, plus one-to-one private tutoring. - Own the full business operation: product development, content production, marketing and client relationships. Previously built and ran two e-learning platforms, awarded Best Business Idea and Implementation, UPT Innovation Fellows 2024.	
Junior Security Researcher Bitdefender	Remote Jul 2024 - Jan 2025
- Built an AI model that reduced false positives in malware detection to a 97% success rate, by analysing contextual cues in suspicious messages together with SMS link metadata. - Developed a cloud-based summarization service for Google Play reviews and app descriptions using a LLaMA-based approach, producing summaries and sentiment scores for data-driven threat triage.	
Nokia	Timisoara, Romania
Software Engineering and Teaching • 1 yr 8 mos	Aug 2023 - Feb 2026
Junior Software Engineer	Jul 2025 - Feb 2026
Delivered and maintained C++ components for mobile network products, resolving Problem Reports and shipping new features inside an agile, distributed team.	
Software Engineer	Aug 2023 - Jul 2024
Contributed to the MCTRL team (BTS processor), resolving Problem Reports and implementing new features in C++, with Python-based automated testing.	
Teacher • Cloud Master UPT and Liga AC Labs	Mar 2024 - Dec 2025
Delivered hands-on lectures, workshops and labs on Docker and Kubernetes for the UPT Cloud Master program and Liga AC Labs, covering containerization, orchestration and deployment strategies.	
Teacher Algorithmics Global	Timisoara, Romania Jul 2024 - Present
Deliver weekly Python and visual programming classes in an international coding school network, adapting material to mixed-level student groups.	

Education and Training

Politehnica University of Timisoara • Master of Engineering, Artificial Intelligence	Jul 2026 - Jul 2028
Politehnica University of Timisoara • Bachelor of Engineering, Computer Science	Sep 2022 - Jun 2026
Diploma thesis graded 10/10: SeraFullAutonoma, an autonomous AI-driven greenhouse combining microcon-	

trollers, embedded sensing and machine learning.

- Coursework: Data Structures, Algorithms, OOP, Operating Systems, Parallel and Distributed Algorithms, Embedded Systems.

AI: Hunting Malware the Smart Way • Bitdefender

Feb 2024 - Jun 2024

Defending and Security in C++ • Synopsys Software Integrity Group

Oct 2023

Technical Skills

Languages: C, C++ (C++11 and later), Python, Java, C#, SQL

Embedded and Systems: Embedded devices, microcontrollers, firmware, Linux, Bash, communication protocols, MPI

AI and Machine Learning: Deep learning, neural networks, computer vision, NLP, LLMs, RAG, embeddings, anomaly detection

Tooling and Quality: Docker, Kubernetes, Git, CI, GTest/GMock, PyTest, Coverity, Clang Analyzer, React, Node.js, MongoDB

Spoken languages: Romanian (native), English (C1, full professional), Serbian (C1 spoken, B2 written)

Selected Projects

StrawBoss • Harvest Logistics Platform

2026 • nortiauno.com

- End-to-end traceability of straw and bale production, from field to warehouse: offline-first mobile app for drivers, loader, baler and warehouse operators, and a live dispatcher dashboard with satellite field mapping and GPS tracks.
- GPS geofencing detects field and depot entry automatically, CMR documents are generated from a three-signature chain, and alerts fire on bale mismatches or idle trucks. Multi-tenant, role-based, with audit logging and CSV/PDF reporting.
- Special Prize IDMSC, Politehnica University of Timisoara.

Smart Assistive Cane • Accessibility Hardware

2026

- Sensor-based cane for visually impaired users pairing obstacle detection with real-time haptic feedback and a camera that recognises objects and familiar faces. Being extended with indoor localization and collaborative mapping (Wi-Fi positioning, sensor fusion, computer vision). Grand Prize, ITfest 2026.

SeraFullAutonoma • Autonomous AI Greenhouse

2025

- Fully autonomous greenhouse integrating IoT sensors, computer vision and machine learning to monitor plant health, regulate conditions and cut resource consumption. Grand Prize, Unihack 2025.

Smart City Archive Intelligence • RAG Platform

2025

- Turned fragmented municipal archives into a searchable knowledge base, with a Retrieval-Augmented Generation agent that answers natural-language questions and cites the exact source documents. Best AI App, HackTM 2025.

PMT GPT • Public Legislation Summarization

2024 • code

- AI platform summarizing County Council Resolutions (HCL) for Timisoara. Won the Digital Administration Award and opened a collaboration with the Timisoara City Hall IT team toward integration into the city website.

InteliMed.AI • Lung CT Nodule Detection

2024 • code

- Learning platform helping medical students detect cancerous nodules on CT scans, with real-time feedback on selected regions and similar-case suggestions for repetition-based learning. Stack: Python, React, Node.js, MongoDB

Honours and Awards

Special Prize IDMSC • Politehnica University of Timisoara

Jun 2026

Grand Prize, ITfest 2026 • OSUT UVT

Apr 2026

Grand Prize, Unihack • Major League Hacking

Nov 2025

Best AI App, 2nd place, HackTM 2025 • Banat IT

Jun 2025

Digital Administration Prize, ITfest

Feb 2025

UPT Innovation Fellows 2024 • InoHub UPT • Best Business Idea

Dec 2024

Digital Administration Prize, Unihack • Major League Hacking

Nov 2024

Prize "prof. George Koning" • outstanding results in physics

Jun 2022

Leadership and Volunteering

Technical Department Volunteer • LigaAC, UPT • university websites

Sep 2022 - Present

Coordinator, Funding Proposals Working Group • LigaAC • led 20 students

2023

Volunteer Coordinator • Capital of Culture, Flight Festival • teams of 20 and 10

2023