



PROFILE

 **Gabriel-Cătălin Nedianu**
 **nedianu.gabriel.n7v@student.ucv.ro**  **gabriel-nedianu**
 **University of Craiova, Romania**

Research profile. PhD student in Computer Science with research focused on Agentic Edge Intelligence and distributed autonomous systems. My work explores multi-agent systems, edge AI, reinforcement learning, cyber-physical systems, and intelligent decision-making at the edge. I am interested in developing adaptive, collaborative, and resource-aware AI architectures for real-world smart environments.

EXPERIENCE

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| 2023–present | Associate Teaching Assistant, Faculty of Automatics, Computers and Electronics
Teaching and mentoring subjects across software/hardware; supervising projects with academic rigor. Conducting laboratory sessions in Communication Protocols, Sensor Networks and Human-Computer Interaction. |
| 2023–present | Android Software Engineer, NetDania
Design modular mobile architecture and inter-module communication (coroutines/Flows, background sync, reactive events); shipped REST/WebSocket features with profiling, debugging, and UX polish under mobile runtime constraints. |
| 2021–2023 | Java Software Developer, Syncro Soft
Developed desktop Java applications and LLM-assisted authoring : prompt engineering and agent actions executed on documents; integrated safely within enterprise workflows and tooling. |

EDUCATION

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| 2025–present | PhD Student , Doctoral School "Constantin Belea", University of Craiova, Computers and Information Technology.
Supervisor: Costin Bădică . Expected graduation: 2029 .
Research topic: <i>Agentic Edge Intelligence on Heterogeneous Devices</i> . |
| 2023–2025 | Master of Science in Software Engineering , Faculty of Automatics, Computers and Electronics, University of Craiova.
<i>GPA: 10/10; Dissertation grade: 10/10.</i>
Dissertation: <i>AirQual: Air Quality Measurement Station</i> — embedded sensing system with a multiplatform mobile app (real-time acquisition/visualization).
National Quantum Hackathon (RoNaQCI): Awarded Finalist . |
| 2019–2023 | Bachelor of Science in Computer Science , Faculty of Automatics, Computers and Electronics, University of Craiova.
<i>GPA: 9.76/10; Thesis grade: 10/10.</i>
Thesis: <i>Air Quality Station Controlled with Mobile App</i> .
Open4Tech speaker (2022, 2023); Hackathons: LiRo, NASA SpaceApps; AI Contest (CCC) — 1st place & 2nd place ; NASA Space Apps mentor. |
| 2015–2019 | Colegiul Național "Ionita Asan" — High School .
Baccalaureate 9.83 ; National Physics Olympiad — silver & bronze ; other national awards in physics/mathematics/science; Erasmus: France (2017), Italy (2019). |

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PUBLICATIONS (INDEXED)

- **Visualization of Training and Testing Results for Solving Mountain Car Problem Using Q-learning.**
Gabriel-Cătălin Nedianu; Ionuț Murarețu; Costin Bădică. *ACSyS 2025*.
DOI: 10.1109/SYNASC69064.2025.00061.
- **Mobile Application for Real-Time Monitoring of an Air Quality Station.**
Gabriel-Cătălin Nedianu; Nicolae Enescu; Cătălina Mancaș. *2023 22nd RoEduNet Conference (IEEE)*.
DOI: 10.1109/RoEduNet60162.2023.10274939.
- **Advanced Persistent Threats.**
Alexandra Barcan; Mircea Bădoi; **Gabriel Nedianu**; Daniel Ciochiu; Claudiu Trăistaru; Nicolae Enescu. *2024 23rd RoEduNet Conference (IEEE)*.
DOI: 10.1109/RoEduNet64292.2024.10722615.
- **Leveraging Open-Source Large Language Models to Generate Datasets from Existing Field-Specific Texts.**
Claudiu Trăistaru; Florin Pop; Costin Bădică; Daniel Ciochiu; Mircea Bădoi; **Gabriel-Cătălin Nedianu**. *INISTA 2024 (IEEE)*.
DOI: 10.1109/INISTA62901.2024.10683817.
- **Task Scheduling Policies in a Cloud Computing Environment.**
Cătălina Mancaș; Eugen Dumitrașcu; Eugen Ganea; Nicolae Enescu; **Gabriel-Cătălin Nedianu**. *2023 22nd RoEduNet Conference (IEEE)*.
DOI: 10.1109/RoEduNet60162.2023.10274919.

AWARDS

- **Craiova Hackathon 2025 — 1st place.**
- **National Quantum Hackathon (RoNaQCI) 2025 — Finalist Award (Top-5 nationwide).**
- **AI Contest (CCC) 2023 — two editions: 1st place and 2nd place.**
- **National Physics Olympiad 2016-2017 — silver and bronze medals.**

TECHNICAL SKILLS

Research interests: Multi-agent systems, edge AI, reinforcement learning, distributed intelligent systems, mobile/embedded AI, cyber-physical systems.

Technical: Python, Java/Kotlin, C/C++, C#, SQL/NoSQL, Android development, embedded systems, TinyML, TensorFlow Lite, PyTorch Mobile/ExecuTorch, MQTT/HTTP/WebSocket, Linux, Git.

Languages: Romanian (native), English (C1).

