Email: dragos.lazea@cs.utcluj.ro
Google Scholar
Github

Dragoș Lazea Ph.D. Student

Education

Department of Computer Science, TU Cluj-Napoca Cluj-Napoca, Romania
Ph.D. Candidate in Computer Science 2025 - Present
- **Advisor:** Prof. Anca Hangan
- **Research area:** Efficient Data Processing in Edge-Cloud Systems

Department of Computer Science, TU Cluj-Napoca Cluj-Napoca, Romania
M.Sc. in Artificial Intelligence and Computer Vision 2023 - 2025
- **Master thesis:** Hardware and Software Solutions for Efficient IoT Data Processing at the Edge
- Research scholarship recipient

Department of Computer Science, TU Cluj-Napoca Cluj-Napoca, Romania
B.Sc. in Computer Science 2019 - 2023
- **Diploma project:** Anomaly Detection in Sensor Data

Professional Experience

CS Department, TU Cluj-Napoca | Cluj-Napoca, Romania Mar. 2026 - Present
- **Junior Lecturer:** leading labs and project work for Structure of Computer Systems, Assembly Language Programming, and Parallel and Distributed Computing courses

CS Department, TU Cluj-Napoca | Cluj-Napoca, Romania Nov. 2023 - Present
- **Research assistant:** working on EU Horizon projects **DEDALUS** and **Hedge-IoT**

CS Department, TU Cluj-Napoca | Cluj-Napoca, Romania Oct. 2023 - Feb. 2026
- **Teaching assistant:** leading labs and project work for Structure of Computer Systems, Assembly Language Programming, and Parallel and Distributed Computing courses

Montran S.R.L. | Cluj-Napoca, Romania July 2023 - Aug. 2023
- **Full-stack intern:** developing a distributed payment system

Publications

1. **D. Lazea**, A. Hangan, and Z. István *EFlexiHist: Efficient and Accurate Software-driven Histogram Designs for FPGAs. International Conference on Field Programmable Technology 2025 (FPT'25)*, Shanghai, China, December 2025, pp. 47-55, doi: 10.1109/ICFPT67023.2025.00016
2. L. Toderean, **D. Lazea**, V. Ofrim, S. Dumbrava, A. Hangan, and T. Cioara *Edge-Oriented Orchestration of Energy Services Using Graph-Driven Swarm Intelligence. EMERGE Workshop @ EWSN 2025*, Leuven, Belgium, September 2025, https://emergeworkshop.github.io/2025/papers/emerge25-final3.pdf
3. **D. Lazea**, A. Hangan, and T. Cioara *Building Equi-Width Histograms on Homomorphically Encrypted Data. Future Internet, 2025; 17(6):256* (2025), doi: 10.3390/fi17060256
4. **D. Lazea**, T. Cioara, A. Hangan, and Z. István *Customizing Pre-Processing Algorithms for Streaming Sensor Data on Embedded Networked Devices. EMERGE Workshop @ EWSN 2024*, Abu Dhabi, UAE, December 2024, https://www.scopus.com/inward/record.uri?eid=2-s2.0-85218246255&partnerID=40&md5=474af05725684b094502089569fdf69
5. G. I. Arcas, T. Cioara, I. Anghel, **D. Lazea**, and A. Hangan, *Edge Offloading in Smart Grid. Smart Cities, Vol. 7, No. 1: 680-711* (2024), doi: 10.3390/smartcities7010028

Posters

1. **D. Lazea**, A. Hangan, and Z. István *FlexiHist: Efficient and Accurate Software-driven Histogram Designs for FPGAs. Field Programmable Logic and Applications 2025 (FPL 2025)*, Leiden, The Netherlands, September 2025
2. **D. Lazea**, A. Hangan, and Z. István *FPGA-Powered Edge Computing: Efficient Multi-Stream Data Processing. Very Large Data Bases Summer School 2024 (VLDB SSC 2024)*, Cluj-Napoca, Romania, July 2024.

Awards and Scholarships

- **TUCN Research Scholarship for Master's Studies**, CS Department — Oct. 2024
- **3rd Place Best Paper Award**, Computer Science Students Conference — June 2023

Volunteering

Very Large Data Bases (VLDB) Summer School | Cluj-Napoca, Romania — July 2023

- Involved in organizing academic and social activities dedicated to M.Sc. and Ph.D. students.

Skills

Languages: Romanian (mother tongue), English.

Programming: `Python`, `C/C++`, `Assembly x86`.

Hardware Design: `FPGA`, `VHDL`, `HLS`.

Personal Skills: Time Management, Problem Solving, Critical Thinking.