

PERSONAL INFORMATION

Timotei Lala

JOB APPLIED FOR
POSITION

Responsabil activități didactice cu studenții

WORK EXPERIENCE

05.07.2018—20.09.2018

Summer practice at Polytechnic University of Timisoara, Control-Systems

Research in Artificial Intelligence applied in Control Systems

18.02.2019-06.01.2020

Intel Movidius Infrastructure SW Developer

Working in Infrastructure team at Intel Movidius Timisoara, for different tasks regarding the Keembay build system, Power management and low-level drivers.

06.01.2020-10.07.2020

Intel Movidius NN SW Developer

Developer position in Neural Networks team, working at the Convolutional Neural Network Runtime Architecture of Movidius chips.

18.05.2020-10.11.2022

Young Teams UEFISCDI project research assistant

Research assistant at a national funded research grant developing hierarchical primitive-based learning methods, combining Iterative Learning Control, Reinforcement Learning and other model-free control algorithms: <https://www.mbradac.info/te2019.html>.

10.07.2020-08.03.2021

CodeRepublik

Software Developer focused on localization and estimation algorithms, for the Ring Zeus indoor drone.

03.03.2021-01.04.2026

Ring, Amazon

Applied Scientist, working on autonomous unmanned aerial vehicles.

01.04.2026-Present

Dedrone, Axon

Machine Learning Engineer, working on Anti-UAV detection solutions for civilian applications.

EDUCATION AND TRAINING

2022-Present

PHD degree

PHD research program studying Safe Reinforcement Learning in control engineering.

2019-2022

MSc in *Intelligent control systems*, Polytechnic University of Timisoara, Romania

2015-2019

BS degree in *Automation and Control*, Polytechnic University of Timisoara, Romania

2011-2015

Undergraduate studies

Pedagogical high school "C.D.Loga", Caransebes, Caras-Severin, mathematics-informatics.

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Cambridge English: Advanced CAE					
German	B2	C1	B2	B2	B2
Deutsches Sprachdiplom (DSD)					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Organisational / managerial skills ▪ Good organisational skills gained from different non-profit organizations and work projects.

Work-related skills

- Computer programming: C, C++, Python, Matlab.
- General Linux OS competencies.
- General Cloud knowledge.
- Knowledge about computer systems.
- Machine Learning and AI architectures understanding.
- Knowledge of Neural Networks architectures. Training and inference.
- Good skills in modelling, simulation and control of dynamical systems.
- Robotic Localization and Navigation algorithms competencies.
- Multimodal AI models experience.

Driving licence B

ADDITIONAL INFORMATION

1. T. Lala, "Stability Analysis of Batch Offline Action-Dependent Heuristic Dynamic Programming Using Deep Neural Networks," *Mathematics*, vol. 13, no. 2, Jan. 2025, WOS:001404369700001.
2. T. Lala, "Safe Switching Model-Free Value Iteration for General Nonlinear Systems," *IEEE Access*, vol. 13, pp. 132170-132193, May 2025, WOS:001542429700047.
3. T. Lala, "Constrained deterministic policy gradient adaptive dynamic programming using projected gradient update," *Syst. Sci. Control Eng.*, vol. 13, no. 1, art. 2546823, 2025, WOS:001599993800001.
4. M.-B. Radac and T. Lala, "Hierarchical Cognitive Control for Unknown Dynamic Systems Tracking," *Mathematics*, vol. 9, no. 21, art. 2752, Oct. 2021, WOS:000720454100001.
5. T. Lala, D.-P. Chirla, and M.-B. Radac, "Model Reference Tracking Control Solutions for a Visual Servo System Based on a Virtual State from Unknown Dynamics," *Energies*, vol. 15, no. 1, art. 267, Dec. 2021, WOS:000741770000001.
6. M.-B. Radac and T. Lala, "Learning nonlinear robust control as a data-driven zero-sum two-player game for an active suspension system," *IFAC-PapersOnLine*, vol. 53, no. 2, pp. 8057-8062, 2020, WOS:000652593000575.
7. M.-B. Radac and T. Lala, "Robust control of unknown observable nonlinear systems solved as a zero-sum game," *IEEE Access*, vol. 8, pp. 214153 - 214165, 2020, WOS:000597190600001.
8. M.-B. Radac and T. Lala, "Learning output reference model tracking for higher-order nonlinear systems with unknown dynamics," *Algorithms*, vol. 12, pp. 1-23, 2019, WOS:000473796000009.
9. T. Lala, "Constrained Adaptive Dynamic Programming for PID Controllers," in *Proc. IEEE 19th Int. Conf. Control Autom. (ICCA)*, Tallinn, Estonia, June 2025, pp. 1-6, WOS:001576315700075.
10. T. Lala, I. Silea, "Iterative Model Free Safe Exploration using Event-triggered Impulsive Perturbations", **acceptat la congresul IFAC, Busan, Korea, 23-28 August 2026**, <https://www.ifac2026.org/fairDash.do>.
11. T. Lala and M.-B. Radac, "Learning to extrapolate an optimal tracking control behavior towards new tracking tasks in a hierarchical primitive-based framework," in *Proc. 29th Mediterr. Conf. Control Autom. (MED)*, Puglia, Italy, Jun. 22-25, 2021, WOS:000811823100064.
12. M.-B. Radac and T. Lala, "A hierarchical primitive-based learning tracking framework for unknown observable systems based on a new state representation," in *Proc. Eur. Control Conf. (ECC)*, Delft, Netherlands, Jun. 29-Jul. 2, 2021, WOS:000768455200216.
13. T. Lala and M.-B. Radac, "Parameterized value iteration for output reference model tracking of a high order nonlinear aerodynamic system," in *Proc. 27th Medit. Conf. Control Autom. (MED)*, Akko, Israel, Jul. 1-4, 2019, doi: 10.1109/MED.2019.8798580, WOS:000503268900007.
14. A.-B. Borlea, T. Lala, and M.-B. Radac, "A hierarchical learning approach for generalized trajectory tracking validated on a magnetic bearing system," in *Proc. Int. Conf. Electr. Comput. Energy Technol. (ICECET)*, Prague, Czech Republic, Jul. 20-22, 2022.