

PERSONAL INFORMATION

Alina Delia Călin

 Cluj-Napoca (Romania)

WORK EXPERIENCE

10/2014–Present

Teaching assistant/Associate Teacher in Computer science

Babes-Bolyai University, Cluj-Napoca (Romania)

Teaching activities; subjects include Operating Systems (Linux, Shell, C, POSIX Threads and Processes), Functional and Logic Programming (LISP, Prolog), Computer Systems Architecture (x32), Bachelor's Thesis coordination, mentoring. Teaching experience since October 2014 (part-time), full time teacher since October 2020. Research activities (including SBRI grant project FREIDA, Python, Machine Learning, Data Analysis of big medical data - 2021). Other projects: TDIH (offering AI/ML trainings for SMEs – since 2022); InnoChange (scout identifying research projects and facilitating their transition to industry/start-up 2021-2023); SentiText (natural language processing and sentiment analysis – research project – 2023).

10/2012–12/2022

Co-founder and Chief Research Officer

MIRA REHAB Ltd., London (United Kingdom)

Managing Research and Clinical Studies of MIRA REHAB product and developing software games (.Net C#). Main clinical collaborations and CR&D projects with The University of Manchester (**Falls prevention SBRI Phase I and II: 2014-2016**), Brunel University and Malaysian partners (**IntelliRehab Neuro-rehabilitation project funded by Innovate UK - Newton fund: 2016-2019**) and NHS Birmingham and Sussex (Rehabilitation for children with long term conditions, funded by **NIHR i4i Connect: 2018**). Expertise in writing applications for grant funding and project management.

Business Manager (2019-2022) with expertise in presentations, demo, collaborations, marketing, conference visibility, engaging with research and collaborators and customers.

Software developer (2012-2018) in .Net, C#, Unity, SQL, C++, Kinect; developing MIRA exer-games.

05/2019-08/2022

Project Manager

01/2015–09/2017

MIRA Rehab SRL, Cluj-Napoca (Romania)

2019-2022 Partner project manager for a European funded (**AAL**) R&D project in collaboration with 6 **European** partners for project **SALSA** – supporting active living style of ageing people.

2015-2017 Partner project manager for a government funded (UEFISCDI) R&D project in collaboration with **The Faculty of Psychology, UBB - Active CORE** - developing cognitive training games for active ageing, project reporting, software design and research.

09/08/2010–27/08/2010

Software developer internship

iQuest Technologies, Cluj-Napoca (Romania)

Java, Android phone app.

EDUCATION AND TRAINING

08/2022-Present

Postdoc researcher - “Applications of AI and ML in agriculture”

Doctoral School of Mathematics and Computer Science, Domain Computer Science, Babes-Bolyai University, Cluj-Napoca (Romania)

10/2014–12/2018

PhD – Thesis titled “Intelligent Rehabilitation Systems Using Motion Camera Interaction”

EQF level 8

Babes-Bolyai University, Cluj-Napoca (Romania)

Artificial intelligence, machine learning, gesture recognition, motion sensors.

10/2012–09/2014 **Master's Degree in Distributed Systems over Internet** EQF level 7
 Babes-Bolyai University, Cluj-Napoca (Romania)
 Hadoop, Data Mining, Security, Cloud Computing, Distributed Models

09/2011–07/2012 **Volunteer**
 Jesuit Volunteer Community Britain, Manchester (United Kingdom)
 Involved with **The Big Issue in the North**: interpreting and translating in English and Romanian, outreach and support for vendors; and **Cheetham & Crumpsall Welcome Centre** (a drop-in centre for individuals and families, including asylum seekers, refugees and homeless people).

10/2008–07/2011 **Bachelor's Degree in Computer Science** EQF level 6
 Babes-Bolyai University, Cluj-Napoca (Romania)
 3 year programme, Computer science in English.

PERSONAL SKILLS

Mother tongue(s) Romanian

Foreign language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	A1	A2	A2	A1	A2

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

Communication skills - international and multicultural collaboration skills proven in international project collaborations (Romania, UK, Malaysia, Austria, Switzerland);

Organisational / managerial skills - PM experience in over 5 research and collaborative international projects

Job-related skills - research skills (data analysis, processing, experiments, testing and validation, ISI publications, reviewer), including writing research grant applications, project implementation and coordination;
 - business development activities (engaging KOLs, strategic collaborations and sales, securing non-dilutive funding for R&D activities, business plan development, pitch deck creation and presentation)
 - coding/teaching skills: Linux, Bash scripting, Assembly, C/C++, Python, Lisp, Prolog, Java, C#, SQL, Linq, Go, Docker, Kubernetes, OOP, Scripting, AI/ML such as classification and regression, Deep learning,
 - website creation/set-up/design/development based on CMS (Drupal, Wordpress).

Artistic skills Acoustic guitar and voice singer (amateur level)
 Watercolour painting specialised in animal/pet portraits (portfolio on request)
 Logo design and basic graphics/image/media editing for marketing/social media

ADDITIONAL INFORMATION

Publications (9 ISI - WoS,
 12 Scopus,
 4 Studia Informatica UBB)

- Marinescu A. I., Muresan H. B., **Calin A. D.**, Coroiu A. M., FREIDA - Fracture Risk Evaluation using Highly Efficient Information Retrieval and Analysis of Large Healthcare Datasets, BIG DATA, 2021.
- Mureşan, H.B.; **Călin, A.D.**; Coroiu, A.M.. Overview Of Recent Deep Learning Methods Applied In Fruit Counting For Yield Estimation. Studia Informatica, V. 65, N. 2, P. 50-65, Dec. 2020
- Muresan H. B., Coroiu A. M., **Calin A. D.**, Detecting Leaf Plant Disease Using Deep Learning : A Review, SOFTCOM, 2020.
- A. D. Călin** and A. Coroiu, Interchangeability of Kinect and Orbbec Sensors for Gesture

Recognition, ICCP 2018.

- I.M. Moldovan, L. Tric, R. Ursu, A. Podar, **A.D. Călin**, et al. Virtual Rehabilitation Programme Using the MIRA Platform, Kinect and Leap Motion in an 81 Years Old Patient with Stroke. EHB, 2017.
- **A. D. Călin**, H. F. Pop and R. F. Boian, Improving Movement Analysis in Physical Therapy Systems Based on Kinect Interaction, BHCI, 2017.
- **A. D. Călin**, Variation of Pose and Gesture Recognition Accuracy Using Two Kinect Versions, INISTA, 2016, Sinaia, Romania.
- **A. D. Călin**, Gesture Recognition on Kinect Time Series Data Using Dynamic TimeWarping and Hidden Markov Models, SYNASC, 2016, Timisoara, Romania.
- **A. D. Călin**, Dynamic Game Difficulty Balancing in Active Ageing Systems, MaCS, Proceedings of CEUR-WS, Eger, Hungary, 2016.
- A. M. Coroiu, **A. D. Călin**, and M. Nuțu. Topic Modeling in Medical Data Analysis. Case Study Based on Medical Records Analysis. Proceedings of the 2019 International Conference on Software, Telecommunications and Computer Networks (SoftCOM), pp 1-5. IEEE, 2019
- A. M. Coroiu, **A. D. Călin**, and M. Nuțu. Communication Style-An Analysis from the Perspective of Automated Learning, Proceedings of the 27th International Conference on Artificial Neural Networks (ICANN), Springer, Cham, Phodes, Greece, October 2018, pp. 589-597.
- A. M. Coroiu, **A. D. Calin**, and H. B. Muresan. "Collaborative Transdisciplinary Educational Approaches in AI." In Proceedings of the 14th International Conference on Computer Supported Education - Volume 2: CSEDU (2), pp. 260-267. 2022.
- Coroiu, A.M. and **Călin, A.D.**., Feedback Seminar Analysis-An Introductory Approach from an Intelligent Perspective. In International Workshop Soft Computing Applications, pp. 73-80. Springer, Cham .2018, September.
- Moldovan I. M., **Călin A. D.**, et al., Development of a new scoring system for bilateral upper limb function and performance in children with cerebral palsy using the MIRA interactive video games and the Kinect sensor, ICDVRAT, 2014, Gothenburg, Sweden.
- Prajescu, I; **Calin, A.-D.**. Multiple Types of AI and Their Performance in Video Games. Studia Universitatis Babeş-Bolyai Informatica, [S.I.], v. 67, n. 1, p. 21-36, july 2022.

Total citations (Google Scholar): 147. [Scopus Profile](#) . [ORCID](#) .

Honours and awards

First 6 projects worldwide at the **Imagine Cup** competition in **2011, New York** software design category with project **MIRA**. International competitor at ImagineCup 2010 in Poland. Participant at the competition UBBOTS in **2011** with the robot **iMark**.