



Adél Bajcsi

Home : Romania



WORK EXPERIENCE

[19/06/2023 – Current] **University research assistant**

Babeş-Bolyai University

Address: Mihail Kogălniceanu 1, 400084, Cluj-Napoca, Romania

- functional magnetic resonance image (fMRI) processing for Alzheimer's disease diagnosis
- preprocessing fMRI images using SPM
- extracting functional connectivity networks
- development of machine learning models to detect Alzheimer's disease

[01/09/2022 – 31/01/2024] **University research assistant**

Babeş-Bolyai University

Address: Mihail Kogălniceanu 1, 400084, Cluj-Napoca, Romania

- image processing
- development of a self-explainable system to detect road conditions

[01/01/2021 – 31/10/2022] **University research assistant**

Babeş-Bolyai University

Address: Mihail Kogălniceanu 1, 400084, Cluj-Napoca, Romania

- development of a Computer-Aided Detection system for breast cancer from digital mammograms

[30/06/2019 – 07/09/2019] **Computer scientist**

Morgan Stanley Analytics Budapest Ltd. www.morganstanley.com

Address: Lechner Ödön 8, 1095, Budapest, Hungary

Internship

[02/07/2017 – 09/09/2017] **Computer programmer**

Morgan Stanley Analytics Budapest Ltd. www.morganstanley.com

Address: Lechner Ödön 8, 1095, Budapest, Hungary

Internship

EDUCATION AND TRAINING

[23/09/2020 – Current] **PhD**

Babeş-Bolyai University, Faculty of Mathematics and Computer Science www.c.s.ubbcluj.ro

Address: 1 Mihail Kogălniceanu, RO-400084, Cluj-Napoca, Romania |

[30/09/2018 – 08/09/2020] **Master's degree**

Babeş-Bolyai University, Faculty of Mathematics and Computer Science www.c.s.ubbcluj.ro

Address: 1 Mihail Kogălniceanu, RO-400084, Cluj-Napoca, Romania |

[27/09/2019 – 30/01/2020] **Master's degree (Erasmus+ programme)**

Johannes Kepler University, Faculty of Computer Science www.jku.at/en/

Address: 69 Altenberger, A-4040, Linz, Austria |

[30/09/2015 – 05/07/2018] **Bachelor's degree**

Babeş-Bolyai University, Faculty of Mathematics and Computer Science www.c.s.ubbcluj.ro

Address: 1 Mihail Kogălniceanu, RO-400084, Cluj Napoca, Romania |

[19/02/2017 – 29/06/2017] **Bachelor's degree (Erasmus+ programme)**

Warsaw University of Technology, Faculty of Mathematics and Information Science www.mini.pw.edu.pl/en/

Address: 75 Koszykowa, PL-00-662, Warsaw, Poland |

[19/02/2017 – 01/07/2017] **Java Enterprise Development Platforms and Frameworks (Java 3)**

Codespring

City: Cluj Napoca | **Country:** Romania |

[30/09/2016 – 09/02/2017] **Java Technologies (Java 2)**

Codespring

City: Cluj Napoca | **Country:** Romania |

[29/02/2016 – 09/07/2016] **Java Fundamentals (Java 1)**

Codespring

City: Cluj Napoca | **Country:** Romania |

[14/09/2011 – 28/05/2015] **High School**

Salamon Erno Theoretical High School, Mathematics-Informatics profile www.salamon.ro

Address: 3-5 Lacul Roşu, RO-535500, Gheorgheni, Romania |

-Mathematics

-Informatics

[15/09/2003 – 11/06/2011] **Elementary School**

Fogarassy Mihaly Elementary School www.fogarassymihaly.ro

Address: 18 Lacul Roşu, RO-535500, Gheorgheni, Romania |

LANGUAGE SKILLS

Mother tongue(s): Hungarian

Other language(s):

Romanian

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

English

LISTENING B2 READING C1 WRITING B1

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

My Digital Skills

Git | Writing and drafting scientific articles | LaTeX | Python | poetry | Anaconda (for Python) | OpenCV | PHP | Laravel 9 | Nuxt | Vue 3 | TypeScript | TailwindCSS | HTML | SQL | MySQL | PostgreSQL | Node.js | C++ | C | Assembly | Java | Prolog | UNIX Shell | Haskell

PUBLICATIONS

[2025] [**Evaluating ResNet-based Interpretable Models for Breast Lesion Classification**](#)

Authors: **Adél Bajcsi**, Camelia Chira, Annamária Szenkovits

Conference: 17th International Conference on Agents and Artificial Intelligence (ICAART), 2025

[2025] [**fMRI Analysis for Alzheimer's Disease Detection: Traditional vs. Deep Learning Models**](#)

Authors: **Adél Bajcsi**, Camelia Chira

Conference: Artificial Intelligence in Medicine AIME2025

Note: submitted

[2025] [**Towards an interpretable breast cancer detection and diagnosis system**](#)

Authors: Cristiana Moroz-Dubenco, **Adél Bajcsi**, Anca Andreica, Camelia Chira

Journal: Computers in Biology and Medicine

[2024] [**Significance of Training Images and Feature Extraction in Lesion Classification**](#)

Authors: **Adél Bajcsi**, Anca Andreica, Camelia Chira

Conference: 16th International Conference on Agents and Artificial Intelligence (ICAART), 2024

[2024] [**Feature combination from different mammogram perspectives to improve lesion classification**](#)

Authors: **Adél Bajcsi**, Camelia Chira

Journal: Logic Journal of the IGPL

Note: accepted

[2024] [**Machine Learning Model Predicts Postoperative Outcomes in Chronic Rhinosinusitis With Nasal Polyps**](#)

Authors: Anda Gata, Lajos Raduly, Liviuta Budişan, **Adél Bajcsi**, Teodora-Maria Ursu, Camelia Chira, Laura Dioşan, Ioana Berindan-Neagoe, Silviu Albu

Journal: Clinical Otolaryngology

[2024] [**Exploring the Impact of Backbone Architecture on Explainable CNNs' Interpretability**](#)

Authors: Ábel Portik, **Adél Bajcsi**, Annamária Szekovits, Zalán Bodó

Journal: Acta Universitatis Sapientiae

[2023] [**Extended Mammogram Classification From Textural Features**](#)

Authors: **Adél Bajcsi**, Camelia Chira, Anca Andreica

[2023] [Textural and Shape Features for Lesion Classification in Mammogram Analysis](#)

Authors: **Adél Bajcsi**, Camelia Chira

Conference: 18th International Conference on Hybrid Artificial Intelligence Systems (HAIS), 2023

[2023] [A comparative study of interpretable image classification models](#)

Authors: **Adél Bajcsi**, Anna Bajcsi, Szabolcs Pével, Ábel Portik, Csanád Sándor, Annamária Szenkovits, Orsolya Vas, Zsolt Bodó, Lehel Csató

Conference: 12th International Conference on Applied Informatics (ICAI)

[2022] [SERS Liquid Biopsy in Breast Cancer. What Can We Learn From SERS on Serum and Urine?](#)

Authors: Stefania D Iancu, Ramona G Cozan, Andrei Stefancu, Maria David, Tudor Moisoiu, Cristiana Moroz-Dubenco, **Adél Bajcsi**, Camelia Chira, Anca Andreica, Loredana F Leopold, Daniela Eniu, Adelina Staicu, Iulian Goidescu, Carmen Socaciu, Dan T Eniu, Laura Diosan, Nicolae Leopold

Journal: Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy

[2022] [An Unsupervised Threshold-based GrowCut Algorithm for Mammography Lesion Detection](#)

Authors: Cristiana Moroz-Dubenco, **Adél Bajcsi**, Anca Andreica, Camelia Chira

Conference: 26th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES), 2022

[2021] [Towards Feature Selection for Digital Mammogram Classification](#)

Authors: **Adél Bajcsi**, Anca Andreica, Camelia Chira

Conference: 25th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES), 2021

[2021] [Towards a Support System for Digital Mammogram Classification](#)

Authors: **Adél Bajcsi**

Journal: Studia Universitatis Babeş-Bolyai Informatica