



Hanna-Georgina Lieb

Nationality: Romanian, Hungarian **Date of birth:** 06/07/2001

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WORK EXPERIENCE

🏢 **Babeş-Bolyai University** – Cluj-Napoca, Romania

City: Cluj-Napoca | Country: Romania

University teaching assistant

[2023 – 2025]

- Fundamental algorithms and data structures
- Formal languages and compilation techniques

🏢 **Babeş-Bolyai University** – Cluj-Napoca, Romania

City: Cluj-Napoca | Country: Romania

Bosch-BBU research “Explainable Artificial Intelligence (AI) for automated driving systems”

[01/11/2023 – 31/01/2024]

🏢 **Frequentis** – Viena, Austria

City: Viena | Country: Austria

Software developer

[01/07/2022 – 30/09/2022]

EDUCATION AND TRAINING

Master degree

Babeş-Bolyai University [01/10/2023 – 07/2025]

City: Cluj-Napoca | Country: Romania | **Field(s) of study:** Data analysis and modelling

Bachelor degree

Babeş-Bolyai University [01/10/2020 – 06/07/2023]

City: Cluj-Napoca | Country: Romania | **Field(s) of study:** Computer science | **Thesis:** Image processing with Neural Networks using wavelet based prototypes

Baccalaureate Diploma

National College "Kölcsey Ferenc" [2016 – 2020]

City: Satu Mare | Country: Romania | **Field(s) of study:** mathematics-informatics, intensive informatics

LANGUAGE SKILLS

Mother tongue(s): Hungarian

Other language(s):

english

LISTENING B2 READING C1 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Romanian

LISTENING B1 READING B2 WRITING B1

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

German

LISTENING A1 READING A2 WRITING A1

SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1

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

PUBLICATIONS

[2025]

On Background Classes in Prototype-Based Architectures Lieb, HG., Kaszta, T. & Csató, L. On Background Classes in Prototype-Based Architectures. *Acta Univ. Sapientiae Inform.* **17**, 6 (2025). <https://doi.org/10.1007/s44427-025-00003-6>

[2024]

Wavelet-Based Prototype Learning for Medical Image Classification H. -G. Lieb, T. Kaszta and L. Csató, "Wavelet-Based Prototype Learning for Medical Image Classification," 2024 IEEE 22nd Jubilee International Symposium on Intelligent Systems and Informatics (SISY), Pula, Croatia, 2024, pp. 000631-000636, doi: 10.1109/SISY62279.2024.10737523.

[2023]

Wavelet-Based Prototype Networks T. Kaszta, H. -G. Lieb and L. Csató, "Wavelet-Based Prototype Networks," 2023 IEEE 21st Jubilee International Symposium on Intelligent Systems and Informatics (SISY), Pula, Croatia, 2023, pp. 000277-000282, doi: 10.1109/SISY60376.2023.10417903.

CONFERENCES & SEMINARS

[05/06/2025 – 07/06/2025] Eger, Hungary

FMF-AI 2025 - International Conference on Formal Methods and Foundations of Artificial Intelligence Explainable image segmentation with wavelet-network

[23/04/2025 – 25/04/2025] Budapest, Hungary

National Student Research Conference Wavelet-based Image Classification. Prototype-based models.

[2024] Pula, Croatia

SISY 2024 - IEEE 22nd International Symposium on Intelligent Systems and Informatics Wavelet-based Prototype Learning for Medical Image Classification

[30/07/2024 – 01/08/2024] Budapest, Hungary

Hungarian Machine Learning Days

[15/07/2024 – 20/07/2024] Novi Sad, Serbia

EEML - Eastern European Machine Learning Summer School

[2024] Cluj-Napoca

Transilvanian students' scientific conference Wavelet-based Image Classification. Prototype-based models.

[2023] Cluj-Napoca

MTNE - Magyar Tudomány Napja Erdélyben (Hungarian Science Day in Transylvania) Wavelet-based image processing using prototypes

[2023] Pula, Croatia

SISY 2023 - IEEE 21st International Symposium on Intelligent Systems and Informatics Wavelet-based Prototype Networks

[2023] Cluj-Napoca

Transilvanian students' scientific conference Image processing with Neural Networks using wavelet based prototypes

SCHOLARSHIPS

[24/02/2025 – 16/05/2025]

Makovecz Scholarship

[2023 – 2024]

Scholarship for scientific activity

[01/07/2022 – 30/09/2022]

Erasmus Scholarship