PERSONAL INFORMATION

Nándor Bándi



WORK EXPERIENCE

10/2020 – present

Software Engineer, Consultant

Codespring, Cluj-Napoca, Romania

Business or sector Software engineering / IT consulting

07/2019 – 09/2019

Computer Vision R&D Intern

Codespring, Cluj-Napoca, Romania

Business or sector Software engineering / IT consulting

02/2018 – 06/2019

Java Mentorship Programme

Codespring, Cluj-Napoca, Romania

Business or sector Software engineering / IT consulting

EDUCATION AND TRAINING

03/2025 – present

Research Assistant

Babeş-Bolyai University, Cluj-Napoca, Romania

- Conducting research on safest route search in networks considering shared link risk groups

11/2023 – 05/2024

Research Assistant

Babeş-Bolyai University, Cluj-Napoca, Romania

- Conducting research on hyper-heuristics for solving continuous optimization problems

2022 – present

PhD, Computer Science

EQF level 8

Babeş-Bolyai University, Cluj-Napoca, Romania

- Research area: hyper-heuristics, optimization, automated machine learning

2020 – 2022

MSc, High Performance Computing and Big Data Analytics

EQF level 7

Babeş-Bolyai University, Cluj-Napoca, Romania

- Thesis: Hybrid sparse non-linear optimization on the GPU

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2017 – 2020

BSc, Computer Science

EQF level 6

Babeş-Bolyai University, Cluj-Napoca, Romania

- Thesis: Image-Based Volume Estimation Using Stereo Vision
- Valedictorian – graduated first of undergraduate class

PERSONAL SKILLS

Mother tongue(s): Hungarian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
	Cambridge English: CAE – C2 Proficiency				
Romanian	C1	C1	C1	C1	C1
	–				

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

ADDITIONAL INFORMATION

Publications

- Bándi, N., and Gaskó, N. Hyperparameter tuning of classification algorithms with a hyper-heuristic framework – the nested Markov hyper-tuner. In 2025 IEEE 37th International Conference on Tools with Artificial Intelligence (ICTAI), 2025, pp. 951–957.
- Bándi, N., and Gaskó, N. Improved nested Markov chain hyper-heuristic framework. A clustering application. In Artificial Intelligence Applications and Innovations, Springer Nature Switzerland, 2025, pp. 204–220.
- Bándi, N. Improving the nested Markov chain hyper-heuristic (NMHH) framework efficiency through sequential probability ratio testing. In 2024 26th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC), 2024, pp. 53–60.
- Bándi, N., and Gaskó, N. A hybrid differential-evolution-based approach to the sensor network localisation problem. In Intelligent Systems Design and Applications, Springer Nature Switzerland, 2024, pp. 50–61.
- Bándi, N., and Gaskó, N. Nested Markov chain hyper-heuristic (NMHH): a hybrid hyper-heuristic framework for single-objective continuous problems. PeerJ Computer Science 10, Feb 2024.
- Bándi, N., and Gaskó, N. Solving continuous optimization problems with a new hyperheuristic framework. In Machine Learning, Optimization, and Data Science, Springer Nature Switzerland, 2023, pp. 116–130.
- Nándor, B., Tunyogi, R.-B., Szabó, Z., Farkas, E., and Sulyok, C. Image-based volume estimation using stereo vision. In 2020 IEEE 18th International Symposium on Intelligent Systems and Informatics (SISY), 2020, pp. 000055–000060.

Honours and awards

- 2021 – Hungarian National Students' Scientific Conference participation, Graphics & Computer Vision Section
- 2020 – First prize at the 23rd Transylvanian Students' Scientific Conference, Theoretical Methods, Experiments, Simulations & Mathematics Section
- 2020 – Valedictorian title – graduated first of undergraduate class

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Courses

- 2024 – Decision Making with Multiple Criteria and Uncertainty (uMCDM): Linear programming, Multiobjective optimization, Robust optimization – Natcor Taught Course Centre, Portsmouth, United Kingdom
- 2021 – Functional Programming in Scala Capstone – EPFL, Coursera
- 2020 – Big Data Analysis With Scala and Spark – EPFL, Coursera
- 2019 – Central-European Functional Programming School: Task Oriented Programming for the Internet of Things, Green Software, B-Method – ELTE Faculty of Informatics, Budapest

Driving licence

B Category

Job-related skills

Skills gained through research, training and professional experience:

- Java, Scala, Apache Spark and GPU-accelerated computing (Coursera/EPFL courses); optimization algorithms and hyper-heuristics (PhD research); computer vision and stereo-vision-based volume estimation (BSc thesis and R&D internship)

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