Ábel Ilyés-Kun

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Education

2023 -	**RWTH Aachen University** MSc Computer Science, AI track
	• Ongoing thesis on human-AI jamming in real-time
	• Paper on MIDI piano performance generation with Transformers, accepted at **NeurIPS 2025** AI for Music Workshop
	• Research seminar on state-space models
Fall 2024	**KAIST** MSc Computer Science Exchange, AI track
	• **DUO-Korea Scholarship**
2019 - 2023	**RWTH Aachen University** BSc Computer Science
	• Thesis at Forschungszentrum Jülich (national research institution) on hyper-parameter optimization
	• Projects on neuro-inspired computing, microcontroller programming and collision avoidance of self-driving vehicles
2016 - 2019	**Goethe Gymnasium Bad Ems** A levels (Abitur)
	• Majors: English, Mathematics and Physics
	• Graduate prize for physics (DPG-Abiturpreis)

Work Experience

2021 - 2023	**Tutor at Research Group for Programming Languages and Verification**
	• Gave weekly classes to group of students (~15) in lecture hall
	• Evaluated coding assignments and helped with questions
March 2020	**Internship at BWI GmbH (IT solutions for Federal Government)**
	• Overview on project management and project organization (Scrum)
	• Introduction to current JIRA-projects at the company

Research and Programming Experience

2022 - 2023	**Thesis at Institute for Computational and Systems Neuroscience**
	• Searching suitable hyper-parameters for clustered spiking neural network model with Optuna
	• Setting up database for parallel optimization on JURECA supercomputer (MySQL)
	• Managing jobscripts in cluster environment (Slurm)
2021 - 2023	**Programming Concepts**
	• Tutored students ín Software Development (Java), Functional Programming (Haskell), Logic Programming (Prolog) and Verification
2021	**Practical at Cyber-Phyisical Mobility Lab**
	• Implemented trajectory planning and collision avoidance for model vehicles
	• Organized workflow in team of six with Scrum and Git

Programming Stack

Languages and Tools	Python, C++, Java, C#, SQL, Bash, Git, Linux, Slurm
Machine Learning and Deep Learning	PyTorch, NumPy, Pandas, Matplotlib, Optuna, Jupyter

Languages and Other Interests

Languages	German (native), Hungarian (native), English (professional), French (intermediate), Dutch (elementary), Romanian (elementary)
Societies	창작동화 jazz band KAIST (2024-), Tennis Club Mixed-Vaals (2022), Rowing Club Bad Ems (2016-2019)
Interests	NLP, computer music, computational neuroscience, piano, jazz, tennis, football, running, politics, psychology, video editing