

Patrik Backo

Prague, Czechia | (+420) 775 089 923 | patrik.backo1@gmail.com
github.com/PatrikBacko | [LinkedIn](#) | [Personal webpage](#)

AI engineer and researcher

EXPERIENCE

AI Engineer	Mar 2026 – Present
Evangelist · Contract	
Build data pipelines that collect and analyse social-media posts and engagement data for short-form video campaigns. Develop analysis for suspicious engagement, brand safety and alignment with campaign assets, alongside campaign reporting.	
AI Researcher	Mar 2025 – Present
Czech Technical University in Prague, Faculty of Electrical Engineering · Part-time	
Research vision-language models (CLIP, SigLIP) and self-supervised visual models (DINO); investigate dataset biases and their effect on image retrieval.	
Deep Learning Vision Engineer	Nov 2025 – Feb 2026
ATG (Advanced Technology Group) · Part-time	
Led technical design and implementation of deep-learning models for non-destructive testing as the sole AI specialist. Built vision pipelines spanning industrial data curation, model training and integration.	
Data Science Intern	Nov 2023 – Oct 2025
MSD Czech Republic · Part-time	
Performed statistical analysis and developed machine-learning and computer-vision models in Python; deployed models using AWS.	
Student Software Developer	Aug 2022 – Dec 2022
Siemens · Part-time	
Developed software in C# and Python; assisted with network and Linux administration.	

SELECTED PROJECTS

Drum one-shot sample generator	— Bachelor's thesis: built a VAE audio generator in Python/PyTorch and curated nearly 16,000 drum samples across 9 categories.
SpeechCoach	— Spoken-English practice prototype with a FastAPI backend and Streamlit frontend, combining Whisper transcription, text-to-speech and LLM-generated feedback.

EDUCATION

Charles University · Faculty of Mathematics and Physics	
Master's degree	2024 – Present
Language Technologies and Computational Linguistics · In progress	
Bachelor's degree	2021 – 2024
General Computer science with focus on AI	
Deep Learning micro-credentials	2025
Reinforcement Learning micro-credentials	2026
Languages: Slovak (native), English (advanced)	
Interests: climbing, hiking, running, cooking	