



CONTACT ME



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 +420-775-130-042

 Adam Hruška



HIGHLIGHTS

- Advanced skills within the framework of computer vision and deep neural networks.
- AI & prompt engineering expert
- Expertise within the field of food security
- Policy analysis & development

Adam Hruška

Postdoctoral Researcher



WORK EXPERIENCE

Junior Researcher

BioResources & Technology Division (BRT) at FTZ/CZU

May. 2024 - Ongoing

- Prague, Czech Republic
- Working on food security and computer vision oriented research projects

Generative AI researcher

Charles University

July. 2024 - Dec. 2025

- Prague, Czech Republic
- Training and finetuning of GenAI models for a GAUK project. Development of methodologies for GenAI image identification analysis.

Technical researcher

Czech University of Life Sciences, Prague

Nov. 2021- Dec. 2025

- Prague, Czech Republic
- Research of computer vision algorithms on the government project QK22010348 - Autonomous systems for integrated production of vegetables

Intern

British Embassy, Public Communications Dept.

Jan. 2019 - Dec. 2019

- Prague, Czech Republic
- Political communication department jobs including the preparation of a communication strategy for the defense department



EDUCATION HISTORY

Ph.D.

Czech University of Life Sciences, Prague

Year of Graduation: 2025

- Prague, Czech Republic
- Dissertation research on "Implementation of machine learning methods for weed detection in broad row crops"

Masters in Agricultural Studies

Czech University of Life Sciences, Prague

Year of Graduation: 2022

- Prague, Czech Republic
- Thesis topic "*Using of machine learning methods for weed detection in crops*"

Masters in International Security Studies

Charles University

Year of Graduation: 2021

- Prague, Czech Republic
- Thesis topic "*Food Security and Machine Learning: Opportunities and Challenges*"

Bachelors in Agricultural Studies

Czech University of Life Sciences, Prague

Year of Graduation: 2020

- Prague, Czech Republic
- Thesis on Comparison of agricultural subsidies and commodity prices in CEE region


Bachelors in Political Science and International Relations


Charles University


Year of Graduation: 2019

- Prague, Czech Republic
- Thesis on Comparison of nuclear deterrence in Southern Asia

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LANGUAGE SKILLS

- **English** - native speaker
- **Czech** - native speaker
- **German** - A2
- **Russian** - A2




COMMUNICATION SKILLS

- Confident, articulate, and professional speaking abilities
- High and confident ability to speak in public, in groups, or via electronic media
- Presentation and negotiation skills Confident in presenting scientific work at international conferences or any forms of media

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OTHER SKILLS AND EXPERIENCES

- Experience in teaching Prompt engineering & agricultural courses
- Experience with the implementation of generative AI models
- Coding in R, Python, Dart & Flutter
- Experience with online platform integration and development
- Advanced knowledge of computer vision
Advanced knowledge in the whole field of artificial intelligence, especially deep neural networks
- Expertise in the framework of food security
- Experience with policy analysis and development

PROJECTS

- HORIZON EUSPA-2022-SPACE project 2024-2026: 101131859 - Combined Use of EGNSS and Copernicus Data to Develop Innovative Downstream Services for the Users from Chile and Colombia (COMUNIDAD).
- HORIZON 2.6 - Food, Bioeconomy Natural Resources, Agriculture and Environment: 101134888 - Data Cube and Copernicus data for Food Security and European Independence
- QK22010348 - NAZV - Autonomous systems for integrated production of vegetables





LIST OF SCIENTIFIC PUBLICATIONS


ARTICLES

- **Hruška, A.**, & Hamouz, P. (2023). Verification of a machine learning model for weed detection in maize (*Zea mays*) using infrared imaging.
- Roubík, H., Lošťák, M., Ketuama, C. T., Soukupová, J., Procházka, P., **Hruška, A.**, ... & Hejcman, M. (2023). COVID-19 crisis interlinkage with past pandemics and their effects on food security. *Globalization and Health*, 19(1), 52.
- **Hruška, A.**, Soukupová, J., Foltýn, I., Mrháčková, I., Pilař, L., & Roubík, H. (2024). The establishment of an optimised rationing system for crisis driven food insecurity, the case of Czechia. *Environment, Development and Sustainability*, 1-16.
- **Hruška, A.**, Hamouz, P., Lev, J., Pavlíček, J., Kroulík, M., Hamouzová, K., ... & Kouřím, P. (2025). Weed detection in cabbage fields using RGB and NIR images. *Smart Agricultural Technology*, 101232.
- **Hruška, A.**, Roubík, H. (2024). Fear of the Future in the Context of the Emergence of Generative Artificial Intelligence Among Young Adults: The Case of Czechia. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal*
- Kandel, G. P., Poláková, J., Hamouz, P., **Hruška, A.**, Varvaris, I., & Manikas, I. (2025). The role of digitalization in supporting farmers and strategic policies for food security and sustainability in Europe: A review. *Sustainable Futures*, 101702
- Kimmel, S. I., Schumacher, M., Spaeth, M., Sökefeld, M., Alagbo, O. O., Allmendinger, A., ... & Gerhards, R. (2025). A comparative applied analysis of six robotic-assisted weeding systems in sugar beets. *Plant, Soil and Environment*, 71(11), 782-792.

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