

# Krisztián Szabó

MASTER STUDENT IN COMPUTER SCIENCE @UTWENTE

☎ (+31) 6 16853598 | ✉ developer.krisz+cv@gmail.com | 💻 k-szabo-dev | 🐦 V4K0ND

## Technologies

<b>Programming</b>	Python 🐍, Docker 🐳, Shell scripting >, SQL 🗄️, Javascript 📄, HTML 📄 & CSS 📄, Java ☕, Haskell, Android SDK 🤖, LaTeX
<b>Libraries/Frameworks</b>	Numpy, Pandas, Jupyter, Django, PostgreSQL
<b>OS's</b>	Windows 🪟, Ubuntu 🐧, MacOS 🍏; open to learning any *nix 🐧
<b>IDE's</b>	Visual Studio Code, Sublime Text, IntelliJ, Android Studio
<b>VCS</b>	Git 🍷
<b>Languages</b>	English (Cambridge C2), Hungarian (Mother tongue), Romanian

## Education

### UT University of Twente

MASTERS COMPUTER SCIENCE - CYBERSECURITY SPECIALIZATION

Enschede, Netherlands

graduation expected by Jul 2025

- Courses: Software Security, Cyber Data Analysis, Machine Learning, Privacy Enhancing Technologies, Internet security, Cyber Risk Management

### UT University of Twente

BSC. TECHNICAL COMPUTER SCIENCE

Enschede, Netherlands

2023 Apr

- Thesis title: Morphing robust face recognition
- Courses: Software Systems [OOP], Languages & Machines, Functional Programming, Algorithmic Discrete Mathematics, Abstract Algebra

## Experiences

### Arise - Website, LinkedIn

Leiden, Netherlands / Remote

ML OPS RESEARCH INTERN - DOCKER / PYTHON / DJANGO / BACKEND / JIRA

Nov 2022 - Present

- Researched and implemented various ML Ops frameworks and built out pipelines for versioning and serving AI algorithms
- Implemented connection between HuggingFace models to be used in ARISE model selection
- Achieved an 89% accuracy in detecting humans with an algorithm fine tuned for wildlife cameras, currently used to delete images of humans from wildlife camera datasets due to GDPR.
- Investigated the inner workings and repurposed an already existing AI challenge app to automatically create leaderboard on specified metrics to integrate with the above mentioned frameworks
- Converted human detection algorithm to run on Snellius (Dutch Supercomputer)
- Contributed to the development of the ARISE platform's Digital species identification

### BestJobs

Targu Mures, Romania

MACHINE LEARNING INTERN

Jul 2019 - Aug 2019

- Learned about and implemented Linear Regression Models
- Learning was largely based on Andrew Ng's coursera course named "Deep learning"

## Projects

### Human detection in biodiversity monitoring

Made for Arise

UNIVERSITY DESIGN MODULE GROUP PROJECT

Sept - Nov 2022

- Designed and developed a containerized AI algorithm to detect and filter out humans in heterogenous camera trap data, which reports back the Bounding Box for the found human in the format specified by Arise's API.
- Developed a containerized algorithm evaluation webapp for generating various performance metrics graphs for AI developers at Arise. Code can be found here.
- Design Report can be found here.

### Self learning security

SECURITY PROJECT

Since 2022

- Deployed canarytokens on hosted server using https://github.com/thinkst/canarytokens, deployed a canarytoken instance to research it's capabilities.

### Wappler integration

At Wappler

INTERNSHIP THROUGH UNIVERSITY MINOR

Sept 2021 - Nov 2021

- Report can be found here

## Home network upgrade

HOME PROJECT

2020 - 2021

- Completely upgraded my home networking stack to enable easier management/deployment for future home projects
- Learned a about the enterprise level networking equipment (Ubiquiti Edgemax and UniFi)
- Self hosting on Raspberry Pi's various software (HomeAssistant, Unifi Network Controller, PiHole)
- Configured VLAN for IoT devices

## Self hostable and expandable IoT sensor home monitoring

UNIVERSITY GROUP PROJECT

- Developed a software which enables end users to self host and monitor sensor using MQTT
- Similar to [home assistant/HASSIO](#)
- Hardware used: Raspberry Pi, Arduinos with various sensors

## Extracurricular Activities

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### Romanian Scouts / The Pathfinder Club

Romania

LEADER

Jun 2013 - Present

- Successfully coordinated and organized multiple week-long camps, overseeing all aspects of event planning, logistics, and execution.
- Designed and implemented a variety of engaging activities tailored to the participants' interests and needs, enhancing their overall camp experience.
- Demonstrated strong problem-solving skills and adaptability in dynamic, fast-paced settings.
- Photographed over 10 events, capturing key moments and effectively documenting the experiences for promotional and archival purposes, available at <https://kepek.osker.ro>.
- Media team leader for 5 camps

### Security / Privacy / OSINT

INTEREST

- Highly interested in and deeply passionate about security, privacy and OSINT
- Participated in and follow as many workshops / webcasts / conference as I can, my favourites being [Blackhills Infosec](#), and [PancakesCon](#)

### Videography and Photography

HOBBY

- Have been practicing and learning photography since the age of 16, self-taught
- Picked up videography from the age of 19, self-taught
- Tools: Lightroom, Premier Pro, Sony A7 IV, Canon R5, iPhone 13 Pro