

#### MASTER STUDENT IN COMPUTER SCIENCE - CYBER SECURITY AT UTWENTE

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# **Technologies**

**Programming Languages** Python ♠, Shell scripting ➤, SQL ♠, Java ♠,

Libraries/Frameworks Torch, Numpy, Pandas, Hugging Face, Jupyter, Django, PostgreSQL

OS's Windows ■, MacOS ♠, Ubuntu; and open to learning any \*nix △

Tools Git git, Docker 🐡, LaTeX, Android SDK 本

**Languages** English (Cambridge C2), Hungarian (Mother tongue), Romanian

# Education

## University of Twente

Enschede, Netherlands

MASTERS COMPUTER SCIENCE - CYBERSECURITY SPECIALIZATION

graduation expected by Jul 2025

- Skills Gained: Cybersecurity strategy development, advanced data analysis, machine learning in security, privacy enhancement, risk management.
- Projects: Privacy preserving machine learning, IoT device traffic analysis

University of Twente

Enschede, Netherlands

BSC. TECHNICAL COMPUTER SCIENCE

2023 Apr

- Thesis title: Morphing robust face recognition: Compared the resiliency of state-of-the-art face recognition methods to adversarial attacks.
- Skills Gained: Software systems design, algorithm optimization, functional programming, abstract algebra applications, shell scripting.
- Projects: Al algorithm to detect and filter out humans in wildlife camera

# Experiences \_\_\_\_\_



Leiden, Netherlands / Remote

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

Nov 2022 - Present

- Researched and implemented ML Ops frameworks (Weights and Biases, Mlflow, BentoML, ...) and built out pipelines for versioning and serving Al 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, which I have also converted to run on Snellius (Dutch Supercomputer)
- 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
- Contributed to the development of AI algorithms which detect and identify species based on their genetic code for ARISE's platform

**№** 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**\_

SECURITY PROJECT

#### **Self learning security**

Since 2022

- Deployed canarytokens on hosted server at Hetzner using <a href="https://github.com/thinkst/canarytokens">https://github.com/thinkst/canarytokens</a>, deployed a canarytoken instance to research it's capabilities.
- Installed and explored Elasticsearch to gain hands-on experience with its capabilities and filtering techniques

#### 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

September 3, 2024 Krisztián Szabó · Curriculum Vitae

## 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**

## 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

# Twente Hacking Squad

#### INTEREST

- Part of the university hacking team, where Phd students present and walk through hacking methods in: Forensics, Reverse engineering, Pwning, Web hacking
- Participated in multiple capture the flag (HacktheboxCTF, DownunderCTF, Cancakescon CTF, LA CTF) ctftime link