

Krisztián Szabó

MASTER STUDENT IN COMPUTER SCIENCE - CYBER SECURITY AT UTWENTE

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Technologies

Programming Languages	Python 🐍, Shell scripting >_, SQL 🗄, Golang =GO, 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 🤖
Languages	English (Cambridge C2), Hungarian (Mother tongue), Romanian

Education

🎓 University of Twente

MASTERS COMPUTER SCIENCE - CYBERSECURITY SPECIALIZATION

Enschede, Netherlands

graduation expected by Jul 2025

- **Skills Gained:** Cybersecurity strategy development, MITRE ATT&CK, Ghidra, advanced data analysis, machine learning in security, privacy enhancement, risk management, Natural Language Processing.
- **Projects:** Privacy preserving machine learning, IoT device traffic analysis, DNS Security Analysis, TLS Scanner and Analyzer

🎓 University of Twente

BSC. TECHNICAL COMPUTER SCIENCE

Enschede, Netherlands

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:** AI algorithm to detect and filter out humans in wildlife camera

Experiences

🤖 Arise - Website, LinkedIn

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

Leiden, Netherlands / Remote

Nov 2022 - Present

- Researched and implemented ML Ops frameworks (Weights and Biases, Mlflow, BentoML, ...) 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, 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

MACHINE LEARNING INTERN

Targu Mures, Romania

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

Self learning security

SECURITY PROJECT

Since 2022

- Deployed canarytokens on hosted server at Hetzner using <https://github.com/thinkst/canarytokens>, 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

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