

Krisztián Szabó

MASTER STUDENT IN COMPUTER SCIENCE - CYBER SECURITY AT UTWENTE

Enschede, open to relocate

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Technologies

| | |
|------------------------------|--|
| Programming Languages | Python 🐍, Shell scripting >_, SQL 🗄️, Golang =GO, Java ☕, Rust |
| Libraries/Frameworks | Torch, Numpy, Pandas, Hugging Face, Jupyter, Django, (Postgre My)SQL |
| 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

UT University of Twente

Enschede, Netherlands

MSC. COMPUTER SCIENCE - CYBERSECURITY SPECIALIZATION

2023 sept - Present

- **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

UT University of Twente

Enschede, Netherlands

BSC. TECHNICAL COMPUTER SCIENCE

2017 jun - 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

Leiden, Netherlands / Remote

ML OPS ENGINEER - 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** AI algorithms
- Restructured and implemented various **HuggingFace models** to be used at ARISE (GPU accelerated)
- 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)
- Configured and deployed an existing open source 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

Local flower company

WEBSITE DEVELOPER - HTML / CSS / JS / PYTHON (FLASK) / MYSQL

May 2019 - Present

- Migrated website hosting from local company to hosterion for improved performance and reliability.
- Rewrote website using responsive design guidelines, generating a codebase with a static website generator.
- Developed frontend with HTML, CSS, and vanilla JavaScript, while backend utilized Python (Flask) for language switching and database fetching.

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

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 its capabilities.
- Installed and explored **Elasticsearch** to gain hands-on experience with its capabilities and filtering techniques
- Began using hardware keys across every online service

Home network upgrade

HOME PROJECT

2020 - 2021

- Completely upgraded my home networking stack to enable easier management/deployment for future home projects
- Purchased and deployed at home 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
- 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
- Some of the used software or techniques: **Ghidra**, **OWASP ZAP**, **SQLi**, **OWASP Top Ten**, **chainsaw** (windows forensics)
- Participated in multiple capture the flag (HacktheboxCTF, DownunderCTF, Cancakescon CTF, LA CTF) [ctftime link](#)