AI, Artificial Intelligence, ML, Machine Learning, Pipelines, Docker

Krisztián **Szabó**

Bachelor Student in Technical Computer Scinece @UTwente

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

Technologies

Programming	Python, Docker, Shell scripting, SQL, Javascript, HTML & CSS, Java, Android SDK, LaTeX
Libraries/Frameworks	Pip, Numpy, Pandas, Jupyter, Django, PostgreSQL
OS's	Windows, Ubuntu (mainly) but any *nix
IDE's	Visual Studio Code, Sublime Text, IntelliJ, PyCharm, Android Studio
VCS	Git **git**
Languages	English, Hungarian, Romanian

Presentation

Tech talks on TV (in Hungarian)

Dec. - Apr. 2021

- Presented various technology and software related facts about privacy and security to the general public
- Themes discussed includes: Passwords, Ad tracking methods, Online Scams
- Can be viewed on: Youtube, Facebook (facebook search might not show all of the videos)

Projects

Human detection in biodiversity monitoring

Made for Arise

University Design Module Group Project — *Sept - Nov 2022*

- Developed a containerized algorithm evaluation webapp for generating various performance metrics graphs for AI developers at Arise. Code can be found here
- 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 the Arise companies API.
- Design Report can be found here

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
- Similar to home assistant/HASSIO
- Hardware used: Raspberry Pi, Arduino,

Road Crossing Co-op

University Group Project

- Developed a real life implementation of Crossy Road on top of prebuilt player movement detection system
- Used Kinect SDK v1.8, OpenCV, Python, Bash, self developed wearable, prebuilt system
- Responsible for object detection and tracking, hardware/software troubleshoot of wearable and prebuilt system
- link to prebuilt system and study `https://doi.org/10.1016/j.entcom.2016.03.001`

Web app for OVSoftware B.V.

University Group project

- Web application for maintenance of internal pay rates for OVSoftware (used Java, Tomcat, PostgreSQL)
- Responsible for back-end and security

Experience

Arise

Leiden, Netherlands / Remote

ML Ops research Intern

Nov 2022 - Present

- Tasks involved researching/implementing ML Ops frameworks and building out pipelines for versioning and serving AI algorithms
- Used Python, Docker, MLflow, BentoML
- Daily standup, JIRA

ERMA Prod Com

Miercurea Nirajului, Romania

Website / General IT / product marketing

April 2020 - Present

- Gave a new look to the companies aging website, most important update being responsive design (customers use mobile devices)
  - old: `https://www.erma.ro/ermavirag/index.html`
  - new: `https://flori.erma.ro/`
- Migrated domain, hosting, email service provider from a local legacy one to Google Workspace and Hosterion
- Administer users of the company
- Introduced a CRM and configured it for the need of the company

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"
- For verification: `coursera.org/verify/G635EXY7M4V2`

Education

University of Twente

Enschede, Netherlands

Technical Computer Science

Sep 2017 - expected by Apr 2023

- *Thesis title*: Morphing robust face recognition
- *Abstract*: The increased accessibility of face morphing software poses a threat to face recognition systems due to their vulnerability to face morphing attacks. An attacker can merge a picture of themselves with another similar but distinct-looking person, and current face recognition systems would consider the picture to match both persons. After creating ID with such picture, the ID would no longer be considered unique. This research aims to combat such attacks by creating a shape-free representation for face recognition and measuring its accuracy against other open-source face recognition software.
- *Grade*: 7
- Can be viewed here

Extracurricular Activity

Video making and Photography

- Have been practising and learning photography since the age of 16, self taught
- Picked up video making from the age of 19, self taught
- Tools: Lightroom, Premier Pro, DJI Osmo Mobile 3, Nikon DSLR, iPhone 12
- Mostly working on product photography and video, for example: `https://fb.me/ErmaProdCom`

Security / Privacy / OSINT

- I am highly interested in and deeply passionate about security, privacy and OSINT
- I try to participate in as many workshops / webcasts / conference as I can, my favourites being Blackhills Infosec, and PancakesCon

Romanian Scouts/Pathfinders

Romania

Leader

Jun 2013 - Present

- Developed and practised leadership skills
- Took part in planning and organising multiple summer camps