

Maksim Melnik

IT Security Professional
Python Developer

Born: 1993

Languages: English, German, Russian

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GitHub	github.com/KeksTheAllmighty
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Education

M. Sc. IT-Security

2016–2020

Master Thesis: Social-media based AI layer for the detection of crisis related events. In scope of the thesis I developed an awareness sharing mechanism based on the social-media posts. A python script would classify the tweets based on the different machine learning algorithms implemented with keras. The best result was achieved with convolutional neural network with 85% macro-F1 score. Additionally, the classified result along with the geolocation was fed to Google Firebase. A user could access the information with the developed Flutter application.

B. Sc. Computer Science

2012–2016

Bachelor Thesis: Implementation of Infrastructureless PSI Protocol. An elliptic curve cryptographic protocol for private data exchange over Bluetooth was implemented on Android, to privately compute and share the Private Set Intersection.

Certifications

Google Cybersecurity
Splunk Fundamentals 1
Lpic-1
Comptia Security+
Comptia Pentest+
Comptia CySA+
eJPT
eCPPTv2
OSCP

Areas of Expertise and Skills

Competences: IT-Security, Penetration Testing, SOC, Artificial Intelligence, Machine Learning, Data Engineering, Process Automation, Deep Learning, Time-Series Analysis, Financial Markets, Risk Management, Blockchain, Social-Media Automation, Web Development.

Technologies: Windows, Linux, Kali, ArcSight, Splunk, Elasticsearch, Opensearch, Hive, Google Cloud, Django, Flask, Numpy, Pandas, PyTorch, Tensorflow, Docker, Ansible, Packer, Terraform, Flutter, JVM, Keycloak IDM, Apache Kafka, Wordpress, Git, Jenkins, Selenium, Bootstrap, LaTeX.

Programming Languages: Python, Java, Powershell, Bash, C, C#, C++, PHP, Javascript, Dart, Solidity, Gradle.

Work Experience

SOC-Analyst @ ACG - Automation Consulting Group

November 2020 – Present

- SOC-Analyst at KfW Bank: incident detection and response in ArcSight, Splunk, Hive.
- Conducted a penetration test on the internal web-application.
- Configured an internal Opensearch SIEM instance.
- Developed internal sigma rules.
- Set up a CTF-Challenge in scope of ITCS-event.
- Deployed Instagram automation.
- Development of numerous Python/Bash scripts for the internal purposes.
- Created an internal Cybersecurity Awareness training program.

Student Developer @ Ericsson

May 2016 – November 2020

- Developed Gradle scripts for test and deployment of Ericsson BSCS product.
- Configured Jenkins jobs for deployment and test of the Ericsson BSCS product.
- Developed internal PHP web-applications.
- Integrated SSO using Keycloak IDM into the internal Spring product.
- Implemented high performance messaging system using Apache Kafka.
- Performed Java resource consumption analysis of the internal Java application using JNI/JVMTI.
- Developed Python Robot Tests using Selenium for the internal web application.
- Developed a Flutter-application for finding general goods in supermarkets.

Student Research Assistant @ TU Darmstadt

November 2017 – June 2018

January 2019 – July 2019

- Developed Wordpress PHP plugin for submission of cyber crime reports.
- Designed a PoC of a Hyperledger Smart-Contract.
- Implemented a Python LSTM model to forecast Linux machine's vulnerability.
- Django backend was implement to interact with the application.

Projects

Financial Markets Data Science & DevOps

- Configured Freqtrade to trade crypto.
- Implemented trading strategy backtest process.
- Created a Python Flask website to showcase machine learning approach for stock price forecasting.
- Configured GitHub Workflows to build and deploy Google Cloud instances with Ansible and Packer.

Sewing Patterns Online Shop

- Wordpress website for selling sewing pattern PDF files.
- Configured infrastructure for file sharing as well as python interface for easy cropping and rendering of the sewing pattern PDF files.
- Configured Facebook Ads, Google Ads, Etsy.
- [Link](#)

Social Media Automation

- Developed Python application to analyze trending topics using Google Trends.
- Developed another Python application to automate video cutting process using moviepy.
- Automated Instagram, Youtube and Pinterest content upload.

Other

- Participated in Computer Chaos Group meetups @ Darmstadt.
- Participated in numerous CTF events.
- Achieved 1st Place @ Merck Hackathon where a Speech-to-Text and Text-to-Speech chatbot was deployed in Azure infrastructure.
- Discovered and reported kernel vulnerability @ TU-Darmstadt.
- Co-Authored a [paper](#).