Shlomi Domnenco

Software Engineer

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Software and cyber security engineer with 3+ years of experience and a master's degree in Computer Science (AI/ML). Proven track record of developing scalable infrastructure and cybersecurity solutions impacting over 500 million users. Passionate about building secure, high-performance systems.

Experience

Meta, *Production Engineer* 2022

Facebook Lite Group, Service Infrastructure Team

- Led the migration from Apache Mina to Netty framework in **Java Spring Boot**, **achieving a 30% reduction in network latency**. Optimized the Facebook Lite backend architecture by **writing critical infrastructure code**, using Netty multiplexing pipelines to improve API gateway performance and **scale systems for over 500 million users** across 14 regions.
- Worked on monolithic project using Mercurial SVC, learned to search for internal solutions and ask questions in **open-source projects**, optimize and test code, **fix large merge conflicts and use Tupperware** (in-house alternative to Kubernetes) for progressive rollout of changes.

Check Point, *Security Analyst* 2020 - 2022

Threat Response Core Group, Research & Development

- **Raised protection score from 82% to 94% for customers** for selected CVEs and beating competitors by researching threats and creating new protections for customers, **resulting in a customer signing a 15M$ contract** and I got a bonus.
- Responsible for researching and creating protections against CVEs in the **Check Point SIEM IPS/IDS** by malware research and **network traffic analysis**, and using tools such as **Metasploit, Wireshark, OWASP, Burp, Snort, YARA rules**. Closely worked in **Linux, Windows environments**.
- Automated the **creation and deployment of anti-bot protections with Python, Gitlab CI/CD**, deployment of **Jenkins jobs and docker containers**, and VM setup in **VMWare vSphere**. Used **SQL** and analyzed **Kibana** customer's data with **elastic search** to find false positives.
- Gained significant knowledge in various **networking protocols**. Communicated with other companies for support with API (**VirusTotal**)

Education

Master of Science (MSc), Computer Science & Mathematics, *The Open University of Israel* 2020

GPA: 90. Research project: research & develop image synthesis machine learning model based on **Stable Diffusion**.

Bachelor of Science (BSc), Computer Science & Mathematics, *Ariel University* Graduated

Graduated. GPA: 82. Cyber Security Program

Studying CompTIA Network+, CCNA certifications as well as AWS Cloud Practitioner.

Skills

Python, Java, JavaScript, TypeScript, React, OpenCV, Tensorflow, PyTorch, Gitlab CI/CD, Docker containers, VMs, Cloud (AWS)

Projects

My portfolio website contains more projects, academic research, about me and my blog. Here are some of the highlighted projects:

TinyURL, Cloud: **AWS Lambda, API Gateway, MySQL, S3, CloudFront, CloudWatch, ACM;** Frontend**: TypeScript, JavaScript, React, Tailwind**

Developed a serverless URL shortener service on AWS that converts long URLs into short, easy-to-share links. Built with AWS Lambda (compute), API Gateway (request handling), MySQL (database), S3 (static hosting), CloudFront (caching and load balancing), CloudWatch (monitoring), and ACM (certificate management). Built the front-end using TypeScript, React, Tailwind.

BlendDigits, ML**: Python, PyTorch, Tensorflow, Tensorboard, ONNX;** Frontend**: TypeScript, JavaScript, React, Tailwind**

Built and trained a Variational Autoencoder (VAE) to interpolate between two images, generating an image of smooth transition. Implemented in Python and PyTorch, with training progress monitored through Tensorboard. The model runs locally on the browser because of ONNX, no APIs are called, and no backend server is used. Hosted on AWS (S3, CloudFront, ACM).

OCR Font Classifier Model, **Python, TensorFlow, OpenCV**

Trained a ML model to predict font types from text images, achieving 96% validation accuracy. Developed using Python, TensorFlow & OpenCV.

Interactive Digit Classifier, **Python, PyTorch**

Created and trained an interactive machine learning model that predicts handwritten digits based on user-drawn input. Developed in Python using PyTorch.