# Markus Sawatzki

Cybersecurity Engineer

## About

- Tokyo JP
- markus.sawatzki@protonmail.com
- markussawatzki.github.io/

## Pentesting/Reverse Engineering Tools

GDB  Ghidra  Radare2
Wireshark  Burp Suite

## Programming Languages

Java  C  C++  Python
JavaScript  Bash

## Markup Languages

LaTeX  XML  Markdown

## Languages

Japanese *(Business level)*
English *(Fluent)*
German *(Native speaker)*
Russian *(Fluent)*

## Interests

**Computer Science**

Binary Exploitation
Reverse Engineering
Cryptography
Programming Languages and Compilers
Software Engineering

**Philosophy**

Language
Logic
Computationalism
Buddhism

## Summary

Cybersecurity expert with a Bachelor of Science, specializing in penetration testing and exploit development. Currently working as a Cybersecurity Engineer in the Forensics Department at Digital Data Solution Inc. in Tokyo, Japan.

## Experience

### Cybersecurity Engineer
*08/2024 - Present*

Digital Data Solution Inc.

Penetration testing, vulnerability research, exploit development, and team training on advanced cybersecurity techniques.

- Perform penetration testing, focusing on low-level exploits (buffer overflows, memory corruption, privilege escalation), while identifying vulnerabilities and detecting indicators of compromise.
- Research emerging attack methodologies, encryption technologies, and reverse engineer malware/ proprietary software to identify malicious code and vulnerabilities.
- Educate team members on practical cybersecurity techniques, including password recovery, encryption analysis, and exploitation methodologies.
- Conduct digital forensics investigations to analyze compromised systems, logs, and artifacts for breach impact assessment.

### Medical Engineering Student Assistant
*06/2022 - 06/2023*

St. Vincenz Krankenhaus (Hospital), Paderborn, Germany

Supporting medical engineering department with IT security related tasks.

- Conducted risk analysis for network infrastructure and network-connected medical devices, presenting findings and offering recommendations.
- Executed penetration tests on medical devices and web interfaces.
- Facilitated responsible disclosure processes for identified vulnerabilities.

### Tutor for "IT Security" Course
*10/2021 - 03/2022*

University of Paderborn, Paderborn, Germany

Designed, prepared and presented exercises, lecture contents and exam tasks. The list of topics includes:

- Symmetric and Asymmetric Encryption
- TLS
- Network Security
- Web Security

## Awards

### Finalist in the "Hacking Challenge - Germany's Best Hacker 2022" CTF Competition

NextGenHackers gGmbH

"The Hacking Challenge 'Germany's Best Hacker' seeks the best ethical hackers and emerging talents in the cybersecurity industry."

## Education

### University of Paderborn, Paderborn, Germany
*10/2015 - 08/2023*

Paderborn, DE

Bachelor of Science Computer Science

- IT Security
- Introduction to Cryptography
- Programming Languages and Compilers
- Embedded Systems
- Secure Software Engineering
- Programming
- Software Engineering

## Projects

**Channel Blocker** · https://github.com/Time-Machine-Development/Channel-Blocker

*01/2018 - Present*

A web extension for Chrome, Firefox, etc. that blocks YouTube™ videos and comments based on user-provided blacklists and/or regular expressions.

- JavaScript
- WebExtension
- Open Source

**CTF Participation**

*01/2019 - Present*

- Hacker101 CTF
- Damn Vulnerable Web Application (DVWA)
- the cryptopals crypto challenges
- OverTheWire
- PortSwigger Web Security Acadamy