

Jasper Rühl

📍 Munich, Germany [in jasperruehl](#) [haxkor](#)

Experience

- May 2026 – present **System Engineer**, System Vertrieb Alexander
Elastic SOC team – internal tooling, security rules, and customer consulting.
- Develop internal tooling for the **Elastic** SOC team
 - Develop and maintain security detection rules
 - Consult with customers on their **Elastic** SOC deployments
- Nov 2024 – Apr 2026 **Associate Engineer Cyber Analytics & Defense**, fernao magellan
Engineer developing a new platform operation service
- Maintain and develop the platform operation service (**Kubernetes**, GitHub Workflows)
 - Developed automated checks against **Elastic** environments
 - Wrote SPL searches and custom search commands (**Python**)
 - Administered customers' **Elastic** Cloud deployments with **Terraform**
- May 2023 – Oct 2023 **Working Student**, Guardsquare
- Prototyped a dependency-detection feature for iOS AppSweep (**Python**, **C++**)
 - Detected statically linked libraries in compiled iOS apps and traced each symbol to its origin
 - Automated building a library repository and extracting the required metadata
- Mar 2022 – Apr 2023 **Working Student**, Controlware
- DevOps for the SOC team's TheHive infrastructure
 - Built an incident importer for EDR platforms MS Defender, SentinelOne, and Cortex XDR
 - Built AutoSOC, auto-resolving trivial MS Defender incidents, and MailTextGenerator for templated incident emails
 - Introduced a fault-resilience decorator adopted across the team's **Python** tools
- Jan 2021 – Dec 2021 **Research Assistant**, Fraunhofer AISEC
- Contributed to an LLVM-based memory safety tool (**C++**, **Python**)
 - Developed proofs of concept for anti-Control-Flow-Integrity exploitation techniques
- Oct 2021 – Mar 2023 **Student Tutor**, Chair of IT Security, TUM
- Taught weekly tutorials accompanying the IT Security lecture
 - Presented and taught the fundamentals of IT security to classes of 5–25 students

Education

- Jan 2021 – Jan 2024 **Technical University of Munich**, Master of Science in Informatics
Focus on security and computer architecture.
- **Thesis:** [Congestion Control for Application Flows on Shared QUIC Connections](#)
Explored methods for lower-latency real-time communication, adding a stream prioritization mechanism

Jan 2016 – Jan 2020 **Technical University of Munich**, Bachelor of Science in Informatics
Minor in Mathematics.

- **Thesis:** [Forkever](#) A GDB-like debugger and memory, allowing for creating check-points. Used by students of the binary exploitation course

Jan 2018 **Multimedia University, Cyberjaya**, Exchange Semester – Malaysia

Jan 2016 **CJD Königswinter**, Abitur

Publications

Feb 2023 **Risotto: A Dynamic Binary Translator for Weak Memory Model Architectures**
Guided research: Improved emulation of the x86 cmpxchg instruction on ARM by introducing a new CAS instruction to QEMU's TCG that lowers to the appropriate ARM instruction.
[10.1145/3567955.3567962](https://doi.org/10.1145/3567955.3567962) (ACM ASPLOS 2023)

Languages

German: Native

English: C2

Malay / Thai: A1