CV -Pasi Saarinen

Phone +46(0)707653396 *Email* pasi@sn1.se *Github* phasip
Company Sn1 Security AB *Org-Nr* 559401-2535

Bio

IT-Security expert with a deep understanding of computer systems and the ability to see both technical and strategic aspects of security. Notable for discovering and disclosing a significant vulnerability in 2018 that exposed BitLocker keys in most commercial laptops. Skilled in hardware security, red-teaming, and pentesting with a strong background in software security and 3GPP standardization of 5G systems. Experienced in leading security research organizations and providing consulting services.

Relevant Work Experience

2023 – Now
Sn1 Security AB Owner and self-employed consultant at Sn1 Security AB

2022 – 2023
Director of Cybersecurity Research - HiQ
Leading the HiQ security research organisation. Focus of the organisation is technical research that benefits HiQ and HiQs customers. Also performed consulting work. *Detailed list of assignments in Appendix A*

2018 – 2022
Senior IT Security Consultant - F-Secure
Helping high-risk customers secure and verify their systems and products. The work includes pentesting, hardware security, red-teaming, requirements design and leading the customers security work. *Detailed list of assignments in Appendix A*

2016 – 2018
Security Researcher - Ericsson
Research focusing on Software Security and 3GPP standardization of the 5G system security.
Relevant work includes design and standardization 5G AKA and of the encryption of the user identity over the air.

Education highlights

2019
P1 Security Training - *P1, France*
Atttacks on LTE, 3G and GSM and how to mitigate them.

2019
Embedded Physical Attacks 101 - *Hardwear.IO, Germany*
Application of side-channel and glitching attacks on hardware.

2017
Information Security and Cryptography - *ATG, Switzerland*
Protocol security and cryptographic primitives

2010 – 2015
Masters in Computer Science and Engineering - *KTH, Sweden*
Including semester abroad at IITD, India.

Language Knowledge

Swedish	Native speaker
English	Full professional proficiency
Finnish	Keen speaker, but lacking profesional vocabulary

Publications & Presentations

2022 Where did my data go? Cybersecurity in the AR & MR domain
Presentation highlighting information security for AR including attacks that extract data from neural networks.

2020 Abusing access to mount namespaces through /proc/pid/root[1]
A new method which allows user with shell on machine to escalate privileges through containerized root access.

2018 An Ice-Cold boot to break BitLocker[2]
Bypass the cold-boot protection in modern laptops to extract disk-encryption keys from memory. Presented at BlueHat and SEC-T.

2017 OpenSAW: Open Security Analysis Workbench[3]
Framework for concolic white-box fuzz-testing of binaries.

2015 Verification of security protocols with state in ProVerif: Avoiding false attacks when verifying freshness[4].
Masters thesis on how to represent and verify stateful protocols in ProVerif

[1] https://labs.f-secure.com/blog/abusing-the-access-to-mount-namespaces-through-procpidroot/

[2] https://www.slideshare.net/MSbluehat/bluehat-v18-an-icecold-boot-to-break-bit-locker

[3] https://link.springer.com/chapter/10.1007%2F978-3-662-54494-5_18

[4] https://www.diva-portal.org/smash/get/diva2:846632/FULLTEXT01.pdf

Appendix A - Consulting assignments

Redacted for online version. Full CV including appendix available on request.