

## Senior Security Analyst

Tim Hummel

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### Abstract

Freelance Security Analyst helping customers remote and on-site in evaluating their products or consulting them on security.

In the last years I evaluated among others mobile payment solutions, secure boot implementations, IoT products with and without TPMs, mobile devices, entertainment systems, Trusted Execution Environments, TEE operation systems, car MCUs, white box crypto solutions, and transport cards.

To obtain the assets and test the security of a product, I apply techniques like source code analysis, design reviews, binary reverse engineering, PCB/hardware analysis, Fault Injection, and Side Channel Analysis.

As a Freelance Security Expert I am personally responsible for the quality of a project and execute it from start to finish. If available I coordinate the technical activities with a team.

Next to the security evaluations I give trainings to customers or develop new attack tools.

### Work Experience

#### Freelancer

Security Consultant/Expert

Delft, Netherlands

Jan 2019 – Today

- Performing security evaluations and consultation
- Training

#### Riscure B.V.

Security Analyst

Delft, Netherlands

Jan 2015 – Jan 2019

- Performing evaluations mostly in the markets of payment and content protection worth several 100.000€ a year
- Emerging technologies including Trusted Execution Environments and Host-Card Emulation
- Freeform or requirements driven evaluations
- Handling of technical communication to customers both remote and on-site
- Performing and designing of external and company internal trainings
- Development of hardware/software tools for evaluations

#### Riscure B.V.

Graduate Researcher

Delft, Netherlands

Feb 2014 - Juli 2014

- 6 month Thesis: "Exploring Effects of Electromagnetic Fault Injection on a 32-bit High Speed Embedded Device Microprocessor" ([www.essay.utwente.nl/65596/](http://www.essay.utwente.nl/65596/))

#### Security Research Labs Berlin

Security Specialist

Berlin, Germany

Nov 2012 - Dec 2013

- Development and research in the field of embedded devices, hardware security, Android and mobile communication.
- Phone, Malware and embedded system reverse engineering

<b>Festool GmbH</b> Junior Software Developer	Wendlingen, Germany May 2011 - Sep 2011
<b>University of Stuttgart</b> Java Tutor	Stuttgart, Germany Apr 2010 - Jul 2010
<b>Institute for machine parts</b> Research Assistant	Stuttgart, Germany Oct 2009 - Jan 2011

## Education

<b>EIT ICT Labs Masterschool</b> MSc Security and Privacy	Netherlands & Berlin, Germany May 2012 - Aug 2014
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- Quadruple Security and Privacy Master at the TU Berlin, Germany and the TU Twente, TU Eindhoven RU Nijmegen, Netherlands
- Additional Innovation and Entrepreneurship Minor

<b>University Stuttgart</b> BSc Electrical and Information Eng.	Stuttgart, Germany Oct 2008 - Apr 2012
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## Talks/Presentations

<b>Expert Panel Darknet</b> Dutch cartel office	De Hague, Netherlands 2017
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- Opportunities and risks of the Darknet for the Dutch cartel office

## Awards and Scholarships

<b>EIT ICT scholar</b>	May 2012 - Aug 2014
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- European scholarship program awarded for academic excellence. Financial support for complete study costs, living costs and study related travel expenses.