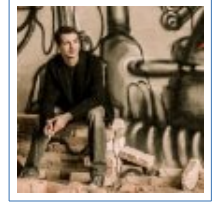


Andreas Happe

Curriculum Vitae

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Employment History

- 2012–Present **Senior Security Engineer**, CORETEC GMBH, VIENNA.
Security-Assessments and Penetration-Tests
- 2012–Present **Software Engineering Contractor**, AUSTRIAN INSTITUTE OF TECHNOLOGY.
Design, Implementation and Maintenance of secure multi-cloud storage systems
- 2009–Present **Ruby on Rails Freelancer**.
Design, Development and Maintenance of Ruby on Rails-based web applications.
- 2006–2012 **Software Engineering Contractor**, ARC SEIBERSDORF RESEARCH GMBH
AUSTRIAN INSTITUTE OF TECHNOLOGY.
Design, Development and Maintenance of a Quantum Key-Distribution system.
- 2007–2009 **CTO**, BLACKWHALE GMBH.
Startup working on web-based work-flow solutions.
- 2001–2007 **System Administrator**, INFOTECH GMBH.
Linux and Microsoft Windows systems.

Technical Skills

- Security Assessment, Design and Implementation of IT-Security-Systems.
Engineering Design, Execution and Documentation of Pen-Tests.
Focus upon manual Application-Level Web Penetration-Tests.
Automated testing with CAPYBARA, ACUNETIX, SQLMAP.PY, etc.
- Software Procedural, Object-Oriented and Functional Programming Paradigms.
Development Expert level in RUBY ON RAILS, C, JAVA.
Unit Testing with RSPEC, MINITEST, JUNIT, CTEST.
Acceptance Testing with CAPYBARA and CUCUMBER.

References

Due to the sensitive nature of my work I prefer to offer references for further information:

- Pen-Tests Manfred Kirisits, CEO CoreTEC IT Security GmbH
imk@coretec.at, +43-676-841-786-310
- Ruby on Rails Peter Greiner, Executive Board Burgstaller-Steiner Immobilien GmbH
peter.greiner@burgstaller-steiner.at, +43-650-473-4637
- Java, Clouds Thomas Lorünser, Austrian Institute of Technology
thomas.loruenser@ait.ac.at
- C, Linux Thomas Themel, Colleague during SECOQC project, now Google Inc.
thomas@themel.com

Noteworthy Projects

- since 2013 MULTIPLE HIGH-PROFILE WEB-APPLICATION BREACHES
Discovered security problems in multiple high-profile web applications (Insurance industry, Banking area). Involved in fixing and preventing future data leaks.
- since 2013 “IMMOSOFT”
Lead-Programmer in a Real-Estate Broker software project. An existing c#/.net application was deemed unmaintainable and its functionality is migrated to an Ruby on Rails web application. Special focus lies on maintainability and automated testing to prevent a similar fate.
- since 2013 ARCHISTAR 2.0
Responsible for the maintenance of the Archistar Java code-base while designing and developing a C-based secret-sharing library for low-power systems.
- 2012–2013 ARCHISTAR
Design and Development of a Multi-Cloud Storage System utilizing BFT (Byzantine Fault Tolerance) and Secret-Sharing techniques.
- 2006–2012 SECOQC
Implementation of the first inter-company quantum key distribution network. I was deeply involved in design and implementation of the networking components (which were written using Linux, Python, C). After the presentation of the prototype during the SECOQC-Conference of 2009 responsible for maintenance and further feature-work.
- 2007–2009 JOLEIN
A time-management and job-scheduling system implemented in Ruby-on-Rails.

Languages

German **Native language**
English **Full professional proficiency**

Formal Education

since 2014 **ongoing PhD studies**, *Software Engineering & Internet Computing*, TU Wien.
2006–2009 **DI/Master of Science**, *Software Engineering & Internet Computing*, TU Wien.
2002–2006 **Bakk. techn.**, *Software & Information Engineering*, TU Wien.
1996–2001 **Matura**, *EDV und Organisation*, HTBLVA Villach.

Masters Thesis

Title *Agile Provenance*
Supervisors S. Dustdar, L. Juszczak, H.-L. Truong
Description Automated transparent provenance gathering and analysis within Ruby on Rails.

Publications

- 2013 New release of an open source QKD software: design and implementation of new algorithms, modularization and integration with IPSec
Andreas Happe, Oliver Maurhart, Christoph Pacher, Thomas Loruenser, Cristina Tamas, Andreas Poppe, Momtchil Peev et al.
- 2012 Timing synchronization with photon pairs for quantum communications
Andreas Happe, Thomas Loruenser, Andreas Poppe, Momtchil Peev, Florian Hipp, Damian Melniczuk, Pattama Cummon, Pituk Panthong, Paramin Sangwongngam et al.
- 2012 Quantum Key Distribution Software maintained by AIT
Andreas Happe, Oliver Maurhart, Christoph Pacher, Thomas Loruenser, Gottfried Lechner, Cristina Tamas, Andreas Poppe, Momtchil Peev et al.
- 2012 QKD software architecture and system integration with classical communication infrastructure
Oliver Maurhart, Christoph Pacher, Andreas Happe, Thomas Loruenser, Cristina Tamas, Andreas Poppe, Momtchil Peev
- 2009 The SECOQC quantum key distribution network in Vienna
Andreas Happe, Momtchil Peev, Thomas Loruenser, Thomas Themel, Christoph Pacher, Oliver Maurhart, Andreas Poppe, Anton Zeilinger, Cristina Tamas, Edwin Querasser et al.