

# Jörg Thalheim

SOFTWARE ENGINEER

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## Education

### TU Dresden

DIPLOMA IN INFORMATIONSSYSTEMTECHNIK

- GPA of Thesis (Diplom): 1.3
- Advanced Courses: Systems Engineering & Communications Networks

*Dresden, Germany*

*Sep. 2011 - Feb. 2017*

## Experience

### Microsoft Research

RESEARCH INTERNSHIP

- **Project:** Intel Processor Trace Based Root Cause Analysis
- **Mentor:** Dr. Baris Kasikci

*Cambridge, England*

*May 2017 - August 2017*

### Bell Labs

RESEARCH INTERNSHIP/THESIS

- **Project:** Sieve: Towards Actionable Insights from Monitored Metrics in Microservices
- **Mentor:** Dr. Bimal Viswanath

*Stuttgart, Germany*

*March 2016 - July 2016*

### TU Dresden

RESEARCH ASSISTANT IN PARALLEL AND DISTRIBUTED SYSTEMS GROUP

- **Project #1:** Inspector — Data provenance for multithreaded programs using Intel Processor Trace (Intel PT)
- **Project #2:** Cntr — Lightweight OS containers
- **Advisor:** Dr. Pramod Bhatotia

*Dresden, Germany*

*September 2015 - Feb 2017*

### Whisp GmbH

SOFTWARE ENGINEER & FOUNDER

- Recommendation platform driven by user opinions
- Ruby on Rails based API
- Server administration
- Android development

*Dresden, Germany*

*January 2013 - January 2015*

### FSD Fahrzeugsystemdaten GmbH

ASSISTANT

- Development of a generic car anti shock test
- Taking and evaluating measurements

*Dresden, Germany*

*January 2011 - August 2011*

## Publications

### Sieve: Towards Actionable Insights from Monitored Metrics in Microservices

JÖRG THALHEIM, ANTONIO RODRIGUES, BIMAL VISWANATH, ISTEMI EKIN AKKUS, PRAMOD BHATOTIA, RUICHUAN

*2017*

CHEN, LEI JIAO, AND CHRISTOF FETZER

- **ACM/USENIX SYSTOR'17** (*Under submission*)

### OS Containers on Diet using Cntr

JOERG THALHEIM, FRANZ GREGOR, PRAMOD BHATOTIA, AND CHRISTOF FETZER

*2016*

- **USENIX OSDI'16** (*Work-in-progress*)
- Project Page: <https://github.com/Mic92/cntr>

*Savannah (USA)*

### Inspector: Data Provenance using Intel Processor Trace (PT)

JOERG THALHEIM, PRAMOD BHATOTIA, AND CHRISTOF FETZER

*2016*

- **IEEE ICDCS'16**
- Project Page: <https://github.com/Mic92/inspector>

*Nara (Japan)*

## Talks

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### ICDCS'16

INSPECTOR: DATA PROVENANCE USING INTEL PROCESSOR TRACE (PT)

*Nara (Japan)*

*Jun. 2016*

### Thesis defense

SIEVE: TOWARDS ACTIONABLE INSIGHTS FOR MONITORED MICROSERVICES

*Dresden (Germany)*

*Feb. 2017*

### Final presentation at Bell Labs

AUTOSCALING OF MICROSERVICES

*Stuttgart (Germany)*

*Jul. 2017*

## Awards

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2016 **Travel grant for ICDCS'16**, ICDCS 2016

*Nara, Japan*

## Projects

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### docker

- Maintainer of the ZFS Graph-driver
- Smaller contributions

### Nixpkgs/Nixos

- Core maintainer of Nixos, a functional Linux distribution
- <https://github.com/Nixos/nixpkgs/>

### python-mpd2

- python library for the MPD network protocol
- <https://github.com/Mic92/python-mpd2>

## Skills

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**Programming** Ruby, Python, C/C++, Go, Java, Shells scripting, JavaScript, Lua

**Administration** Chef, Ansible, Mail-/Web-server, Network: BGP/OSPF/IPv6

**Databases** Postgresql, Mysql, MongoDB, Elasticsearch, Redis

**Web** Ruby-On-Rails, Flask, Sinatra

**Languages** German, English, French

**OS-Visualisation** LXC, Docker, systemd-nspawn, FreeBSD jails

**Other** git, test-driven development, active in the open source community

## References

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- [1] **Prof. Dr. Pramod Bhatotia** The University of Edinburgh, UK | ✉ [pramod.bhatotia@ed.ac.uk](mailto:pramod.bhatotia@ed.ac.uk)  
[2] **Prof. Dr. Christof Fetzter** TU Dresden, Germany | ✉ [christof.fetzter@tu-dresden.de](mailto:christof.fetzter@tu-dresden.de)