

# STEFFEN MAASS

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## Education

<b>Georgia Institute of Technology</b>	Ph.D. in Computer Science Atlanta, GA Advisor: Dr. Taesoo Kim Field of research: Systems	01/2015 – 05/2019 ( <i>expected</i> ) GPA: 4.0 / 4.0
<b>Georgia Institute of Technology</b>	M.Sc. in Computer Science Atlanta, GA Specialization: Networking	08/2013 – 12/2014 GPA: 4.0 / 4.0
<b>University of Stuttgart</b>	M.Sc. in Computer Science Stuttgart, Germany Specializations: <i>Database Systems</i> and <i>Distributed Systems</i> Thesis: Distributed Graph Processing and Partitioning for Spatiotemporal Queries in the Context of Camera Networks	10/2012 – 08/2015 GPA: 1.1 / 1.0 ( <i>excellent with distinction</i> )
<b>University of Stuttgart</b>	B.Sc. in Computer Science Stuttgart, Germany Thesis: Efficient Strategies for Task Distribution for Public Sensing	10/2009 – 09/2012 GPA: 1.5 / 1.0 ( <i>excellent</i> )

## Research Interests

Distributed Systems, Operating Systems, and Graph Processing.

## Current Research

I am working on a profiler for distributed systems which allows developers to easily identify code for which optimizations have a high potential of improving the application's performance [Poster @ NSDI'17].

I am furthermore interested in big-data and especially graph-analytics workloads, for static and temporally evolving datasets [EuroSys'17, EuroDW'18].

## Publications

- SOLROS: A Data-Centric Operating System Architecture for Heterogeneous Computing (to appear)**  
Changwoo Min, Woon-Hak Kang, Mohan Kumar, Sanidhya Kashyap, **Steffen Maass**, Heeseung Jo, and Taesoo Kim.  
*EuroSys'18*, Porto, Portugal, April, 2018.  
*Acceptance rate: 16.4%*
- LATR: Lazy Translation Coherence**  
Mohan Kumar\*, **Steffen Maass\***, Sanidhya Kashyap, Ján Veselý, Zi Yan, Taesoo Kim, Abhishek Bhattacharjee, and Tushar Krishna.  
*ASPLOS'18*, Williamsburg, VA, USA, March, 2018.  
**\* marks joint first authors.**  
*Acceptance rate: 17.5%*

3. | **MOSAIC: Processing a Trillion-Edge Graph on a Single Machine.**  
**Steffen Maass**, Changwoo Min, Sanidhya Kashyap, Woonhak Kang, Mohan Kumar, and Taesoo Kim.  
*EuroSys'17*, Belgrade, Serbia, April, 2017.  
**Best Student Paper Award**  
*Acceptance rate: 20.5%*
4. | **Understanding Manycore Scalability of File Systems**  
Changwoo Min, Sanidhya Kashyap, **Steffen Maass**, Woonhak Kang, and Taesoo Kim.  
*ATC'16*, Denver, CO, June, 2016.  
*Acceptance rate: 19.0%*

## Workshops

1. | **KALEIDOSCOPE: Graph Analytics on Evolving Graphs.**  
**Steffen Maass** and Taesoo Kim.  
*In the 12th EuroSys Doctoral Workshop Workshop (EuroDW)*, Porto, Portugal, April, 2018.

## Posters

1. | **MOSAIC: Processing a Trillion-Edge Graph on a Single Machine.**  
**Steffen Maass**, Changwoo Min, Sanidhya Kashyap, Woonhak Kang, Mohan Kumar, and Taesoo Kim.  
*In the Workshop on Optimization & Big Data (OBD'18)*, KAUST, Saudi Arabia, Feb, 2018.  
**Best Contribution Award**
2. | **DISTCOZ: Tell Me What to Optimize in My Distributed Application**  
**Steffen Maass**, Mohan Kumar, and Taesoo Kim.  
*NSDI'17 - Poster*, Boston, MA, April, 2017.
3. | **Network Function Fault Isolation in a Single Address Space**  
Mohan Kumar, **Steffen Maass**, and Taesoo Kim.  
*NSDI'17 - Poster*, Boston, MA, April, 2017.

## Awards

<b>OBD'18</b>	Best Contribution Award	02/2018
<b>Eurosys'17</b>	Best Student Paper Award	04/2017
<b>DAAD</b>	Stipend(\$15K) and tuition waiver awarded by the German Academic Exchange Service (DAAD) for studying at the Georgia Institute of Technology.	08/2013 – 08/2014

## Travel Grants

1. | **14th USENIX Symposium on Networked Systems Design and Implementation**  
Boston, MA

03/2017

## Invited Talks and Presentations

<b>ASPLOS'18 - Lightning Talk</b>	LATR: Lazy Translation Coherence	Williamsburg, 03/2018
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<b>OBD'18 - Spotlight Talk</b>	MOSAIC: Processing a Trillion-Edge Graph on a Single Machine	KAUST, 02/2018
<b>Intel ISTC</b>	MOSAIC: Processing a Trillion-Edge Graph on a Single Machine	Atlanta, 06/2017
<b>EuroSys'17</b>	MOSAIC: Processing a Trillion-Edge Graph on a Single Machine	Belgrade, 04/2017

## Work Experience

<b>Ph.D. Software Engineering Intern</b>	Google, Mountain View, CA Intern in the Platforms team, working on performance diagnosis of Google's next-gen SDN platform.	05/2016 – 08/2016
<b>Ph.D. Software Engineering Intern</b>	Google, New York, NY Working on the control plane of the load-balancing platform of Google's front-end serving infrastructure.	05/2015 – 08/2015
<b>Graduate Research Assistant</b>	Georgia Tech, Atlanta, GA Research in the <i>Embedded Pervasive Lab</i> under Dr. Kishore Ramachandran and <i>Systems Software &amp; Security Lab</i> under Dr. Taesoo Kim.	since 08/2013
<b>Software Developer</b>	maß IT consulting, Kirchheim unter Teck, Germany Development of customized web applications.	2008 – 2014

## Teaching Experience

<b>Graduate Teaching Assistant</b>	Georgia Tech, Atlanta, GA Graduate Teaching Assistant for <i>Computability &amp; Algorithms</i> and <i>Advanced Operating Systems</i> .	2014 – 2015
<b>Teaching Assistant</b>	University of Stuttgart, Germany Teaching Assistant for <i>Distributed Systems</i> & a hands-on class on processor architecture and design.	2011 – 2013