

# Antoine Kaufmann

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## EDUCATION

- (expected) 2018 **Ph.D. in Computer Science and Engineering**  
University of Washington  
Advisors: Thomas Anderson, Simon Peter (UT Austin)  
Thesis: High-speed network packet processing with NIC-software co-design
- 2014 **M.Sc. ETH in Computer Science**  
ETH Zurich  
Advisor: Timothy Roscoe  
Thesis: Efficiently executing the Dragonet network stack
- 2012 **B.Sc. ETH in Computer Science**  
ETH Zurich  
Advisor: Timothy Roscoe  
Thesis: Low-latency OS protocol stack analysis

## PROFESSIONAL EXPERIENCE

- 2015 **Intel Labs, Hillsboro OR**  
Research Intern Systems and Architecture
- 2006 – 2014 **HILOTEC E&C AG, Switzerland**  
Software Developer
- 2012 **ITmovement AG, Switzerland**  
Course Instructor

## PUBLICATIONS

**Antoine Kaufmann**, Tim Stamler, Simon Peter, Naveen Kr. Sharma, Thomas Anderson, and Arvind Krishnamurthy. Lightweight Data Center TCP Packet Processing. *Under submission*.

Phitchaya Mangpo Phothilimthana, Ming Liu, **Antoine Kaufmann**, Simon Peter, Rastislav Bodik, and Thomas Anderson. Floem: Language, Compiler, and Runtime for Network Applications on Heterogeneous Systems. *Under submission*.

- 2017 Naveen Kr. Sharma, **Antoine Kaufmann**, Thomas Anderson, Changhoon Kim, Arvind Krishnamurthy, Jacob Nelson, and Simon Peter. Evaluating the Power of Flexible Packet Processing for Network Resource Allocation. In *14th USENIX Symposium on Networked Systems Design and Implementation (NSDI)*, 2017.

- 2016 **Antoine Kaufmann**, Simon Peter, Naveen Kr. Sharma, Thomas Anderson, and Arvind Krishnamurthy. High performance packet processing with FlexNIC. In *21st International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS)*, 2016.
- 2016 James Bornholt, **Antoine Kaufmann**, Jialin Li, Arvind Krishnamurthy, Emina Torlak, and Xi Wang. Specifying and checking file system crash-consistency models. In *21st International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS)*, 2016.
- 2015 Kornilios Kourtis, Pravin Shinde, **Antoine Kaufmann**, and Timothy Roscoe. Intelligent NIC Queue Management in the Dragonet Network Stack. In *3rd Conference of Timely Results in Operating Systems (TRIOS)*, 2015.
- 2015 **Antoine Kaufmann**, Simon Peter, Thomas Anderson, and Arvind Krishnamurthy. FlexNIC: Rethinking Network DMA. In *15th Workshop on Hot Topics in Operating Systems (HOTOS)*, 2015.
- 2013 Pravin Shinde, **Antoine Kaufmann**, Kornilios Kourtis, and Timothy Roscoe. Modeling NICs with Unicorn. In *7th Workshop on Programming Languages and Operating Systems (PLOS)*, 2013.
- 2013 Pravin Shinde, **Antoine Kaufmann**, Timothy Roscoe, and Stefan Kaestle. Modeling NICs with Unicorn. In *14th Workshop on Hot Topics in Operating Systems (HOTOS)*, 2013.

## HONORS & AWARDS

- 2015 Eurosys Best Poster Award
- 2014 Gary Kildall Endowed Fellowship

## TEACHING EXPERIENCE

- Computer Operating Systems (graduate)**, University of Washington
- 2017 Teaching Assistant, Guest Lecturer
- Introduction to Operating Systems**, University of Washington
- 2016 Teaching Assistant, Tutor
- The Hardware/Software Interface**, University of Washington
- 2016 – 2017 Tutor
- Systems Programming and Computer Architecture**, ETH Zurich
- 2012 Teaching Assistant
- Operating Systems and Networks**, ETH Zurich
- 2012 Teaching Assistant

**SUPERVISED  
STUDENTS**

2017 **Paul Yau**, undergraduate research and master's project

**SERVICE**

2015 **UW Graduate Admissions Committee**

**LANGUAGES**

**German:** native

**English:** fluent

**French:** intermediate (reading), basic (writing, speaking)

**REFERENCES**

**Thomas Anderson**

Professor

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University of Washington

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**Simon Peter**

Assistant Professor

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