# 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 – 2015**  **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, 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**
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tom@cs.washington.edu
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Seattle, WA 98195-2350
USA

**Simon Peter**
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