Oliver Michel

Education

Philosophical Doctor (Ph.D.) in Computer Science
University of Colorado Boulder, Aug. 2015 – May 2019 (expected)
Research Area: Systems & Networking
Thesis: Cloud-Scale, Packet-Level Network Telemetry & Analytics

Master of Science (M.S.) in Computer Science
University of Colorado Boulder, Aug. 2013 – May 2015

Bachelor of Science (B.Sc.) in Computer Science
University of Vienna, Austria, Jan. 2009 – Jan. 2013
Thesis: Adaptive Source Routing and Speculative Execution for Multi-Homed Wireless Clients in Preclinical Medical Care

Experience

Research Assistant
University of Colorado Boulder, Aug. 2013 – May 2019
Boulder, CO, USA

- Leading various research projects, mainly in the area of programmable data planes, SDN controllers, and high-performance network monitoring

WAN Automation Engineer
Juniper Networks, Summer Internship, May 2016 – Aug. 2016
Bridgewater, NJ, USA

- Designed and developed packet-optical integration features of the NorthStar WAN SDN controller for Juniper's Converged Supercore architecture

Lead iOS Software Engineer
Tupalo.com Internet Services GmbH, Jun. 2009 – Jun. 2011
Vienna, Austria

- Built Tupalo's iPhone Application as well as API Development

Selected Publications

O. Michel, J. Sonchack, E. Keller, J. M. Smith. "**Packet- Level Analytics in Software without Compromises**". In Proceedings of the 10th USENIX Workshop on Hot Topics in Cloud Computing (HotCloud '18), Boston, MA, USA, 2018

J. Sonchack, O. Michel, A. J. Aviv, E. Keller, J. M. Smith. "**Scaling Hardware Accelerated Monitoring to Concurrent and Dynamic Queries With *Flow**". In Proceedings of the 2018 USENIX Annual Technical Conference (ATC '18), Boston, MA, USA, 2018

O. Michel, E. Keller. "**Policy Routing using Process-Level Identifiers**". In Proceedings of the 3rd IEEE International Symposium on Software Defined Systems (SDS-2016), Berlin, Germany, 2016

M. Monaco, O. Michel, and E. Keller. "**Applying Operating System Principles to SDN Controller Design**". In Proceedings of the 12th ACM Workshop on Hot Topics in Networks (HotNets-XII), College Park, MD, USA, 2013

A. Vulimiri, O. Michel, P. B. Godfrey, and S. Shenker. "**More is Less: Reducing Latency via Redundancy**". In Proceedings of the 11th ACM Workshop on Hot Topics in Networks (HotNets-XI), Redmond, WA, USA, 2012

Contact

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olivermichel.github.io

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Languages

- German (native)
- English (full professional)

Programming Languages

- C/C++
- Ruby
- Python
- Objective-C
- JavaScript
- R

Skills and Technologies

- Computer Systems
- Computer Networks
- Software-Defined Networking
- Network Monitoring
- Programmable Data Planes
- Cloud Computing
- Research and Development
- Data Analysis
- Linux
- DevOps
- Software Architecture
- Microservices
- iOS Development
- Ruby on Rails
- Git