

PETER OKELMANN

Systems Research Lab
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EDUCATION

- SS 2022 – PRESENT** **ONGOING: DR. RER. NAT. INFORMATICS (PHD)**
TECHNICAL UNIVERSITY MUNICH (TUM)
- SS 2020 – WS 2021/22** **MASTER IN INFORMATICS**
TECHNICAL UNIVERSITY MUNICH (TUM)
Thesis: *Building lightweight VMs for Function as a Service*
[\[code\]](#)
- WS 2015 – WS 2019** **BACHELOR IN INFORMATICS**
TECHNICAL UNIVERSITY MUNICH (TUM)
Thesis: *Performance analysis of the VPP software router* [\[code\]](#)

WORK EXPERIENCE

- 01.03.2022 – PRESENT** **SCIENTIFIC STAFF: TUM**
SYSTEMS RESEARCH GROUP
- 15.06.2025 – 15.10.2025** **INTERNSHIP: NOKIA BELL LABS**
SOFTWARE AND DATA SYSTEMS RESEARCH LAB:
CONFIDENTIAL VIRTUAL NETWORK FUNCTIONS
- 01.09.2021 – 31.10.2021** **HIWI: TUM**
RESEARCHING VIRTUAL DEVICES FOR KVM
- 01.11.2020 – 15.01.2021** **PART-TIME JOB: MOONLIGHT GMBH & CO. KG**
FULL STACK DEVELOPER AND CONSULTANT
- 01.10.2020 – 30.11.2020** **TEMP JOB: IKUDRUS GMBH**
EMBEDDED SOFTWARE DEVELOPER

PUBLICATIONS

- UNDER REVIEW**
EUROSYS'26
- VMUX: A UNIFIED NETWORK DEVICE VIRTUALIZATION ARCHITECTURE**
- **Peter Okelmann**, Masanori Misono, Redha Gouicem, Antoine Kaufmann, Pramod Bhatotia
 - [\[code\]](#)

CONEXT'25	MORPHOS: AN EXTENSIBLE NETWORKED OPERATING SYSTEM <ul style="list-style-type: none"> ▪ Peter Okelmann, Ilya Meignan-Masson, Masanori Misono, Pramod Bhatotia ▪ [code]
SOCC'24	UIO: LIGHTWEIGHT AND EXTENSIBLE UNIKERNELS <ul style="list-style-type: none"> ▪ Masanori Misono, Peter Okelmann, Charalampos Manias, Pramod Bhatotia ▪ [code]
EUROSYS'22	VMSH: HYPERVISOR-AGNOSTIC GUEST OVERLAYS <ul style="list-style-type: none"> ▪ Jörg Thalheim, Peter Okelmann, Redha Gouicem, Pramod Bhatotia ▪ [code]
NETSOFT'21	ADAPTIVE BATCHING FOR FAST PACKET PROCESSING IN SOFTWARE ROUTERS USING MACHINE LEARNING <ul style="list-style-type: none"> ▪ Peter Okelmann, Leonardo Linguaglossa, Fabien Geyer, Paul Emmerich, Georg Carle ▪ [code]

AWARDS

EUROSYS 2022	BEST ARTIFACT AWARD (HONORABLE MENTION) VMSH: HYPERVISOR-AGNOSTIC GUEST OVERLAYS
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TALKS

14.06.2022	VMSH: HYPERVISOR-AGNOSTIC GUEST OVERLAYS INVITED TALK AT IBM WATSON RESEARCH CENTER
09.05.2022	VMSH: HYPERVISOR-AGNOSTIC GUEST OVERLAYS INVITED TALK AT INTEL LABS – DATACENTER SECURITY GROUP
08.04.2022	VMSH: HYPERVISOR-AGNOSTIC GUEST OVERLAYS CONFERENCE TALK AT EUROSYS'24

TEACHING

SS 2024	INTRODUCTION TO SOFTWARE ENGINEERING Lecture, 2050 students (Übungsleitung)
WS 2023/2024	CLOUD SOFTWARE ENGINEERING Practical Course, 24 students (Instructor)
	OPERATING SYSTEMS AND VIRTUALIZATION Seminar
SS 2023	INTRODUCTION TO SOFTWARE ENGINEERING Lecture, 2200 students (Instructor)

INTERACTIVE LEARNING AND SYSTEMS MANAGEMENT
Practical Course, 27 students (Instructor)

WS 2022/2023

COMPUTER SYSTEMS LAB
Practical Course, 15 students (Instructor)

DISTRIBUTED SYSTEMS MANAGEMENT
Practical Course, 15 students (Instructor)

OPERATING SYSTEMS AND VIRTUALIZATION
Seminar

SS 2022

ADVANCED SYSTEMS PROGRAMMING IN C/RUST
Practical Course, 90 students (Instructor)

ADVISED THESES

3 BACHELOR STUDENTS, 1 MASTER STUDENT

SKILLS

AREAS Networking, Virtualization, Operating Systems

PRIMARY PROGRAMMING LANGUAGES
C, C++, Rust, Python, Nix, and Java/Kotlin.

LANGUAGE SKILLS German (native), English (fluent), Italian and Latin (basic knowledge),
Swedish and Japanese (very basic, A1)

REFERENCES

Prof. Dr. Pramod Bhatotia
TU Munich
Email: pramod.bhatotia@cit.tum.de

Prof. Dr. Redha Guicem
RWTH Aachen
Email: redha.guicem@rwth-aachen.de

Prof. Dr. Antoine Kaufmann
MPI for Software Systems, Saarbrücken
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Dr. Masanori Misono
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