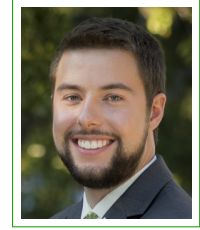


Kevin Boos

Systems/Mobile Researcher

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Education

2012

Ph.D. Computer Engineering, Rice University.

Advisor: Dr. Lin Zhong, *Rice Efficient Computing Group*

Dissertation: Theseus: A Runtime-Composable, State Spill-free Operating System

M.S. Computer Engineering, Rice University.

Thesis: *Immersive VR on Weak Mobile Devices via Rendering Memoization*

2007

2011

B.S. Computer Engineering, The University of Texas at Austin.

GPA: 3.91/4.00 Minor: Mandarin Chinese

Industry Experience

2015

Research Intern, Microsoft Research.

- Immersive Virtual Reality for weak mobile devices.
- Mentors: David Chu & Eduardo Cuervo

2014

Advanced Technology Intern, ARRIS (formerly Motorola Mobility).

- Display sharing synchronization framework for multi-screen distributed systems.
- Mentors: Venu Vasudevan & Jehan Wickramasuriya

2012

Ph.D. Research Intern, Nokia Research Center.

- I/O virtualization of Linux kernel block devices.

2011

Software Developer, Emerson Process Management, I/O Services.

- Designed communication protocol to collect data from I/O devices for process control.
- Created Windows Forms app (C#) to log I/O data and generate graphical displays.

2009

Technical R&D Intern, Texas Instruments DLP.

- Developed analog circuit to power digital micromirror devices (DMD) used in pico-projectors.
- Programmed Perl test routines, lab-tested DMD functionality using probes/parametric analyzers.

Publications

2017

Kevin Boos and L. Zhong. "Theseus: A State Spill-free Operating System." *in Proc. ACM PLOS 2017.*

2017

Kevin Boos, E. Del Vecchio, and L. Zhong. "A Characterization of State Spill in Modern Operating Systems." *In Proc. ACM EuroSys 2017.*

2016

Kevin Boos, E. Cuervo, and D. Chu. "FLASHBACK: Immersive Virtual Reality on Mobile Devices with Rendering Memoization." *In Proc. ACM MobiSys 2016.*

2015

Kevin Boos, A. Amiri Sani, and L. Zhong. "Eliminating State Entanglement with Checkpoint-based Virtualization of Mobile OS Services." *In Proc. ACM APSys 2015*.

2014

A. Amiri Sani, **Kevin Boos**, M.H. Yun, and L. Zhong. "Rio: A System Solution for Sharing I/O Between Mobile Systems." *In Proc. ACM MobiSys 2014*.

2014

A. Amiri Sani, **Kevin Boos**, S. Qin, and L. Zhong. "I/O Paravirtualization at the Device File Boundary." *In Proc. ACM ASPLOS 2014*.

2012

Kevin Boos, C. Fok, C. Julien, M. Kim. "BRACE: An Assertion Framework for Debugging Cyber-Physical Systems." *In Proc. ICSE 2012*.

Knowledge & Skills

Languages

- Rust
- C
- Java
- C++
- Shell

Environments/Platforms

- OS development, systems hacking
- x86 & ARM architecture
- Static analysis (Clang/LLVM, Soot)
- Android frameworks
- Linux kernel

Tools

- Vim
- L^AT_EX
- Eclipse
- Git/SVN

Service

2018

App Chair, *HotMobile 2018*.

2017

Co-Chair, *MobiSys 2017 PhD Forum*.

2017

TPC Member, *ACM S3 2017*.

2016

TPC Member, *MobiSys 2016 PhD Forum*.

Awards

2014

ACM MobiSys 2014 Best Paper Award.

2013

NSF GRP Honorable Mention.

2012

Rice University Graduate Fellowship Award.

2007

2011

Earnest Cockrell, Jr. Engineering Scholarship.
Maintained GPA > 3.5 for all undergraduate semesters.

2010

UT Austin Asian Studies Chinese Scholarship.

References

Advisor

Lin Zhong, Ph.D., lzhong@rice.edu, (713) 348-4163.
Professor, Rice University ECE & CS Department

Additional references available on request.