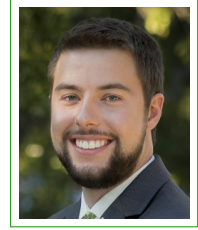


# Kevin Boos

*Systems/Mobile Researcher*

6022 Moonmist Drive  
Houston, TX 77081

☎ (214) 532-3725  
✉ kevinaboos@gmail.com  
📄 kevinaboos.web.rice.edu



## Education

2012

**Ph.D. Computer Engineering, Rice University.**

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

**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.**

- Cloud-served Virtual Reality for 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 comm. 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

2016

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

2015

**Kevin Boos**, A. Amiri Sani, and L. Zhong. "Eliminating State Entanglement with Checkpoint-based Virtualization of Mobile OS Services." In *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 *MobiSys* 2014.

2014

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

2012

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

## Knowledge & Skills

### Languages

- C
- Java
- C++
- Shell

### Environments/Platforms

- Linux kernel, MINIX
- Android frameworks
- ARM architecture
- Static analysis (Clang/LLVM)

### Tools

- Vim
- L<sup>A</sup>T<sub>E</sub>X
- Eclipse
- Git/SVN

### Other Skills

- Intermediate Mandarin Chinese
- Concert-level pianist, over 20 years of experience

## Awards

2014

ACM MobiSys 2014 Best Paper Award.

2013

NSF GRP Honorable Mention.

2012

Rice University Graduate Fellowship.

2007

2011

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

2010

UT Austin Asian Studies Chinese Scholarship.

## Relevant Coursework

- Multicore Computing Architectures
- Complexity in Mobile Computing
- Compiler Design & Construction
- Software Measurement & Metrics
- Real-time Embedded OS Design
- Real-time Microcontroller Interfacing
- Parallel Programming
- Computer Security
- Distributed Systems
- Software Evolution
- Embedded Design & Modeling (SpecC)
- Digital Logic/FPGA Design (VHDL)

## References

Advisor

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

**Additional references available on request.**