Bryan Buckley

bryan.w.buckley@gmail.com | www.bryanwbuckley.com
Available to relocate

EXPERIENCE

Software Engineer, Trustonic; San Francisco, CA 2013 - Present

- Ported L4 microkernel Secure OS (<t-base) to multiple silicon partners' High Security SoCs
- Developed a secure driver notification mechanism to deliver power management events
- First US engineer. Provided high priority support/solutions to partners in North America
- Debugged/Identified (at least) cryptographic, page table, and PM bugs

Software Design Engineer, Texas Instruments; Dallas, TX 2011 - 2013

- Debugged/Integrated/Maintained a Trusted Execution Environment (TEE) for High Security OMAP devices enabled with MShield technology for newest Android HLOS and kernel
- Part of small cross-company team that integrated/developed Google Widevine DRM leveraging OMAP MShield features into Android ICS
- Designed/Developed a novel solution for a 78% speedup of each enter+exit secure playback duration in collaboration with remoteproc SW engineer
- Maintained Widevine DRM secure service and Common Secure Driver git project
- Enabled Android userdata encryption on all OMAP silicon
- Debugged/Identified kernel and ROM bugs, related to MPUSS and power management

Co-op, GE Intelligent Platforms Embedded Systems; Huntsville, AL 2008, 2009

- Gained experience as a Software Engineer and Driver Developer programming and debugging Windows, Linux, and Solaris drivers for VME Single Board Computer products
- Implemented atomic behavior of NVRAM R/W operations in SMBus driver across all OSes
- Reduced SBC operating environment setup time from ~1 hour to 12 minutes (avg. case) for Unit and System Test processes by developing an in-house cloning and deployment tool

EDUCATION

The University of Alabama; Tuscaloosa, AL December 2010
Bachelor of Science, Electrical and Computer Engineering with Honors
Minors: Mathematics, Computer Science
Societies and Associations: Tau Beta Pi Honor Society, Eta Kappa Nu Honor Society
Cum Laude, awarded full University scholarships: Presidential, Maness Engineering, and Alabama Innovation and Mentoring of Entrepreneurs Outstanding Achievement
Coursework: Embedded Systems • Computer Architecture • Operating Systems • Computer Vision and Digital Image Processing • Digital Systems Design • VLSI • Signals and Systems • Data Structures • Theory of Probability • Applied Matrix Theory • Japanese • Mentoring Entrepreneurs

Birmingham Southern College; Birmingham, AL Summer 2005
Summer Scholar, full scholarship for two summer classes

SKILLS

Software: C • C++ • Assembly (ARM, Thumb-2) • ARM TrustZone • Matlab • Bash shell scripting • GNU/Linux • Windows Driver Kit (WDK) • Windows Embedded Standard • HTML • CSS
Tools: Git • Lauterbach T32 JTAG debugger • WinDBG kernel debugger • MediaWiki • UML
Hardware: Processors (ARM Cortex-A5, Cortex-A7, Cortex-A9, Cortex-A15) • Microcontrollers (Ti C2000, ARM Cortex-M3, Freescale HCS12, Atmel AVR) • VHDL • VLSI

LEADERSHIP

The University of Alabama Men's Crew Club 2006 - 2010
Novice Coach, President (2010), Vice-President (2008), Boathouse Captain (2007)
Financial Success: Increased routine fund-raising campaign income to a record $3968, up 69%
Peer Leadership: Helped cultivate an environment which impassioned 50 new members per year

Matthews Elementary School; Tuscaloosa, AL 2010
Honors College Volunteer Mentor