Kevin Gilbert

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Education

University of Texas at Austin Austin, TX • Bachelor of Science in Computer Engineering., 2011-2015

Electrical and Computer Engineering Unix Programming · Embedded Systems · Robotics · Computer Architecture · Computer Networks · Digital Logic Design · FPGA Development · Algorithms · Digital Signal Processing · Software Development

Work History

National Instruments (July 2015 - Current)
R&D Software Engineer

- Driver developer for the USRP line of Software Defined Radios. Work focus was on the C++ and LabVIEW driver layer, API, example files, and application plugins for FPGA and Host devices.

National Instruments (May 2014 - August 2014)
Software Engineer Intern

- Worked on driver level software for the VST (Vector Signal Transceiver) within the RF team.
- Volunteered with local middle school children to work on LEGO mindstorms robotics in a Summer program.

Introduction to Embedded Systems - UT Austin (January 2013 - May 2013, January 2015 - May 2015)
Teaching Assistant

- Course introduced students to ARM's Thumb ISA on a LM3S1968/TM4C development board before transitioning to writing drivers for interfacing basic devices to the system in C.
- Recipient of a "Top TA of the Semester Award" in the ECE department.

Rehabilitative and Neuromuscular (ReNeu) Robotics Research Lab (May 2013 - January 2014)
Undergraduate Research Assistant

- Robotics research lab within UT Austin that focused on human centered robotics for rehabilitative purposes. The main projects included robotic exoskeletons for the uppderbody and hand and the study of human mechanics through simulation and development of prosthetic devices.
- Contributed to a variety of projects involving:
  - FPGA development, PCB design, real-time linux operating systems, motion-capture systems, and EMG measurements tied to a prosthetic limb through CAN.

Dr. Gerstlauer - UT Austin (June 2012 - August 2012)
Undergraduate Reseach Assistant (Volunteer)

- Volunteer position under Dr. Gerstlauer to benchmark graduate student's embedded system simulation code against a physical system.

Relevant Course Work

- **Undergraduate Courses:**
  - Embedded systems design lab, computer architecture, algorithms, real-time DSP, automatic control theory, digital logic design.
- **Graduate Courses:**
  - Security at the Hardware-Software Interface - Dr. Mohit Tiwari

Skills

- Proficient in: C/C++, Java, Python, VHDL, Verilog, Bash, EagleCAD (PCB Design)
- Familiar with: Matlab, LaTeX
- Version control experience: Git, SVN, Perforce, TFS

Organizations

- Secretary IEEE Communication Society (January 2014 - May 2015)
- Secretary IEEE Robotics and Automation Society (May 2012 - December 2013)
  - Co-chair Intelligent Ground Vehicle Competition (IGVC) Robotics Challenge (May 2014 - May 2015)
  - IGVC is an intercollegiate robotics competition held across the United States that focuses on outdoor navigation to GPS nodes using vision processing to avoid obstacles and stay within marked lanes.