JEFFREY BECKMAN
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Education

Rose-Hulman Institute of Technology	B.S in Electrical Engineering	Feb 2011	3.1/4.0

Work Experience

- **Field Consultant Engineer** **July '11 - Now**
  Green Hills Software, Santa Barbara CA
  - Provided technical support for embedded development tools including real-time operating system, C/C++ compiler, trace debugger, and JTAG debug probe
  - Helped customers debug embedded programming problems on ARM, PowerPC, and x86
  - Wrote testcases in C and C++ to reproduce behaviors based on customer's descriptions, requiring an in-depth knowledge of hardware, C language, and operating system concepts
  - Communicated with customers daily to convey technical concepts in accessible language
  - Answered the most difficult questions on the operating system, becoming an in-house expert on the operating system, and supervising the RTOS support mailing list
  - Managed 5-10 short and long term projects simultaneously
  - Updated a comprehensive changelog for certification purposes
  - Authored several small programs in C, C++, and Python, as well as dozens of technical articles to help solve common problems
  - Optimized slow performing flash driver, realizing dramatically faster boot times for the OS and better average access times
- **Validation Intern** **June'10-Aug'10**
  Freescale Semiconductor, Austin TX
  - Tested, demonstrated and documented new features on dual core automotive chip
- **Software Integration Intern** **June'09-Aug'09**
  Northrop Grumman, El Segundo CA
  - Wrote radio abstraction layer for real-time operating system on aerial refueling test plane

Side Projects

- **Green Light Props** **May '12 - Now**
  Santa Barbara CA greenlightprops.com
  - Founded company to design and manufacture smart LED dance props
  - Designed custom PCB with an ARM based chip using an 802.15.4 radio, accelerometer, LED driver, and battery charging through USB
  - Molded round rubber enclosure to resist high impact and diffuse light from LEDs
  - Architected firmware in C including a lightweight, low power mesh network
  - Programmed gesture recognition test program in Qt5 and OpenGL to visualize patterns
  - Configured web server, mail server, and forum for discussion on the prop's design
  - Built iOS app for vision impaired users to read playing cards using OpenCV

Programming Proficiency

- **Languages** (C, C++, Python, Go, Asm, Shell) **OS** (INTEGRITY, Contiki, iOS, Linux, Windows) **Arch** (ARM, PowerPC, x86, MIPS, Coldfire) **Tools** (git, svn, gdb, EAGLE, MATLAB, Maple, SPICE) **Hardware** (reverse engineering, SMT rework, high-speed digital, analog)

Other Interests

Private Pilot License	40 hr PIC	130hr TT	Feb 2014
Juggling, Dance, Choreography			Jan 2010
Computer Security, CTFs, DEFCON			Aug 2012
Ham Radio Technician			Jan 2007