

JEFFREY BECKMAN
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Education

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

- **Firmware Engineer** Aug '17 - Now
Fitbit, San Diego CA
 - Authored custom platform-independent drivers for tightly constrained embedded system
 - Implemented a comprehensive debugging solution for eliminating crashes, ultimately realizing a stable firmware platform
 - Programmed a full-stack data science application using assembly, C, Python, Java, SQL, and Javascript to visualize and investigate key performance metrics
 - Provided on-site support at the factory in China, significantly improving yields and quality above industry standards for a new flagship product, Charge 3
 - Maintained code base and build systems for multiple cross-platform systems
 - Lead cross functional manufacturing support team to develop lasting procedures and tools
- **Field Consultant Engineer** July '11 - May '17
Green Hills Software, Santa Barbara CA
 - Provided expert support for embedded development tools including RTOS, C/C++ compiler, debugger, and probe.
 - Conveyed technical concepts to customers through code samples and accessible language
 - Optimized slow performing embedded software to dramatically improve performance and reduce boot times for large automotive customers
 - Managed projects to provide supplementary support for safety critical customers
- **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
 - Personal design, manufacturing, and repair for smart LED dance props
 - Designed custom PCBs for wireless sensors and interactive devices
 - Programmed gesture recognition test program in Qt5 and OpenGL to visualize patterns
 - Built iOS app for vision impaired users to read playing cards using OpenCV
 - Engaged in contract work for clients needing custom engineering

Programming Proficiency

- **Languages** (C, C++, Asm, Python, Javascript, Vue.js, SQL, Make, Bash, Chinese, Japanese)
RTOS (NuttX, INTEGRITY, Contiki, Linux) **Tools** (git, svn, gdb, MATLAB, LabView, SPICE)
Hardware (soldering, 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
<i>Performance Arts resume available upon request</i>			
Computer Security, CTFs, DEFCON			Aug 2012