

Daniel Nelson
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WORK

GOOGLE, INC. 2013-PRESENT

Responsibilities: Various

CISCO SYSTEMS, INC. 2009-2013

Responsibilities: Design, implement, and maintain system software for Cisco Telepresence products

- Participated in the software bring-up of multiple embedded Telepresence systems
- Designed and implemented a Linux kernel driver and user-space utility to control an embedded managed Ethernet switch
- Designed and implemented a new, re-usable software architecture for embedded board management controllers on new Telepresence systems
- Architected the internal network for all Cisco Telepresence products, improving security
- Performed security audits of Telepresence software and developed proof of concept demonstrations
- Managed multiple upgrades of the build system/development environment and kernel/libraries
- Participated in Campus Relations, interviewing students and attending on-campus events at Cal Poly

Tools: GNU Toolchain (C/C++), Buildroot, Python, bash, vim, GNU Make, Autotools, cscope, gdb, oscilloscope, bus analyzers

Technologies: SPI, I2C, MDIO, USB, Ethernet, PoE, JTAG

Architectures: TileGX, MIPS (Pic32), ARM, x86, PPC

PROJECTS

- Designed and implemented hardware and software for an Atmel-based lighting solution
- Created a DVR app to record selected TV programs
- Wrote a Wii homebrew app to support Airtunes media streaming to the Wii.

EDUCATION

CALIFORNIA POLYTECHNIC STATE UNIVERSITY 2004-2009

M.S. Computer Science 2009

Masters Thesis: "Internet Scale Reactive Routing and Mobility"

B.S. Computer Engineering 2009

Cumulative GPA: 3.8

Vice President of Tau Beta Pi, CA Mu (2008)

Eta Kappa Nu, Cal Poly Honors Program, Computer Engineering Honors Society