Stephen Niedzielski

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Summary: Adept programmer seeking worthy challenges at a progressive company.

Experience

Software Engineer Aug 2012 – Present
Newisys, Colorado Springs, CO
Skills: C, Git, Bash, Eclipse, VirtualBox, Ubuntu, Green Hills (GHS), ThreadX, Expanders, SES, SCSI, SMP, I2C, Ethernet, JTAG, UART, SPI, Storage Servers and JBODs, SG Utils, QEMU, JIRA, Doxygen

Newisys is a small but growing server and storage R&D offshoot of Sanmina Corporation. I'm a firmware developer and hardware bringup engineer for our advanced server motherboards. Within a few months of starting, I developed a significant portion of the software stack from alpha board bringup to sustaining engineering of our 2012 flagship product. My part in delivering a successful launch required a domain crossover and my success in doing so is a testament to my adaptability, efficiency, and dedication.

I'm currently engaged on our next-gen server and JBOD lineup, sustaining older products, and our high scalability effort for code, test, and documentation.

Senior Computer Engineer Apr 2012 – Jun 2012
VendScreen, Inc., Seattle, WA
Skills: Android, C, C++, Java, JNI, Chroot, PIC18, ADB, SPI, MDB, Bash, VirtualBox, Git, Pbuilder, Logic

VendScreen is a small startup that aspires to revolutionize the vending machine industry using the Android platform. I owned the peripheral bootloader and firmware, including the communication layer between the application processor and MDB coprocessor. I also made notable contributions to the build system and manufacturing processes. The VendScreen founders were concession industry veterans but very fresh to software development. This disconnect led to many disagreements and an ultimate fallout between teams. Although this endeavor didn't pan out as I had hoped, it was one of my best learning experiences.

Software Engineer II and Founding Member Jun 2011 – Apr 2012
Samsung AT&T and T-Mobile R&D Lab, Bellevue, WA
Skills: Android, Java, Git, Perforce, Bash, Make, Eclipse, Sed, ADB, NFS, Jenkins, Ubuntu, Cygwin, Redmine, MediaWiki, Samba, NIS, VirtualBox, ODIN, SQLite3

Samsung's Android phone and tablet lab was a unique opportunity and special experience. I was one of the first five employees and actually made our initial code release. We grew rapidly and I built the majority of lab infrastructure and fundamental tooling needed to enable developers as we went, everything from the build servers to the wiki. I even met with the electrician to make sure our battery backup could handle the load. I invented numerous, sometimes novel, engineering solutions in the face of resource limitations, policy, and heritage systems. Some critical examples included implementing incremental builds in the Samsung code base, remote Android Eclipse debugging, and virtual ODIN flashing. In general, I defined and matured many core processes.

In addition to being the infrastructure lead, I was also the Android software project lead for City ID and Name ID platform implementations on all AT&T and T-Mobile devices (20+ platforms). The majority of this work was mostly at the Android application and middleware layers. I also did regular pre-launch triage support for many other apps including Ready2Go, Qik, and Social Hub. Lastly, I was the lead Perforce integrator and local scripting expert. I defined the lab integration patterns and incrementally developed many integration, shell, and ADB test automations from interim solutions to robust essentials. My adaptability, commitment, willingness to wear many hats, and the foundations I helped establish and evolve, were greatly responsible in part for the successful launch of the new lab.

Engineer Nov 2009 – Jun 2011
Qualcomm Incorporated, Boulder, CO
Skills: USB, UEFI, C++, C, Perforce, Bash, Zsh, FPGA, Windows Phone 7, Windows Mobile 6, Windows 8, Cygwin, Perl, Sed, Trace32, C#, Visual Studio, DLL, Bugzilla, JIRA, EHCI, BullseyeCoverage, MSBuild, Clonezilla, QXDM, (Platform) Builder, Doxygen, Mscgen, Graphviz

I was the primary UEFI developer for the USB peripheral driver during Windows 8 bringup. I was also

the lead integrator for USB, UART, and other technologies on all WP7 platforms. Our team placed high value on and was a paradigm for test automation as well as static and dynamic code analysis. As a result, we were recognized for frequently maintaining a zero weekly bug count. Overall, I enjoyed my time at Qualcomm and I'm proud of the contributions I made.

Software Engineer (Contractor) May 2008 – Oct 2009
Nintendo Technology Development, Inc., Redmond, WA
Skills: C, C++, USB, EHCI, OHCI, Bash, Hudson, Wii, Nintendo, Cygwin, Make, CVS, SVN, Sed, Visual Studio, CodeWarrior, Bugzilla, CodeWarrior, Visual Studio, IncrediBuild

I was a USB firmware developer for the Nintendo Wii in a tiny but brilliant R&D department. I worked on the EHCI and OHCI host layers, various device drivers, middleware, demos, the build system, and everything in between. I also wrote extensive test automation suites and even developed on a custom peripheral for exercising corner cases. I was offered an RFT position as a game systems designer for rapidly prototyping hardware and software concepts and continued work on the USB stack, but chose to pursue other opportunities to gain more industry exposure.

Education

B.S., Computer Engineering Sep 2005 – Apr 2009
DigiPen Institute of Technology, Redmond, WA
Skills: C, C++, Linear Algebra, Calculus, Verilog, USB, Kernel, FPGA, Assembly, Eclipse, RTOS, UART, I2C, SPI, Cygwin, SVN, TCP / IP, Python, PIC18, ColdFire, Z80, Game Boy, Game Boy Color & Advance, MATLAB, 3ds Max, Win32, Visual Studio, MPLAB, EAGLE, Active-HDL, Quartus, Doxygen, FPGAs, PLDs, MCUs

DigiPen offers a comprehensive curriculum with unmatched challenges in academia. I was one of their first computer engineering graduates. My coursework included writing an embedded kernel and USB drivers from scratch for multiple architectures, designing real-time image processing electronics, and co-developing a method of volumization using Riemann sums and infrared sensors. As an understudy of the department chair, I designed, simulated, and synthesized a graphics processor for mobile systems. I was also a student ambassador and even appeared in the semi-monthly newsletter on several occasions.

Additional Skills and Interests

- Web development: Django / Python, HTML, CSS, PHP
- GNU / Linux development: kernel, Bash, Xmonad and X scripting, Haskell, C, C++, Make, virtualization (QEMU, VirtualBox, Pbuilder, Chroot, etc.), regular expressions, GDB, gVim
- Interests: web development and UI design, game development, scripting, automation, anything CLI, workflow optimization, road cycling, and indie and classic gaming.