**Patrick Anderson**

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**Cross-Platform Senior Software Engineer**

Expert with C/C++, Visual Studio, Emacs, gcc, gdb, resource management strategies (such as RAII and zero-copy), filesystems, Win32 API, Windows internals.

Strong with BASH, Batch, POSIX, networking, hypervisors, Linux internals.

Worked with Python, JavaScript, Java, .NET, C#, REST, HTML, XML, SQL Server, OS X internals, Windows drivers.

**Experience**

**Dec/2013 - Nov/2015: RackWare**

Solidify, extend and simplify file-based imaging software.

Automate product build, package, verify, install, test, reports.

Automate VM lifecycle management on vSphere, KVM, XEN and SoftLayer.

Used: C, C++, BASH, WMI, vbscript, Batch, Jenkins, Java, AIK/ADK, WinPE, Visual Studio, gcc, gdb, virsh

**Oct/2008 - Oct/2013: StorageCraft**

Write caching VHD and VHDX plugins in C for Windows, Linux and OS X.

Extend and repair in-house cross-platform, block-based imaging library.

Integrate VMware VDDK libraries for VMDK and ESXi targets.

Write skeleton snapshot driver for HFS+ on Mac OS X.

Automate build system to compile, sign, package, verify and report.

Develop framework to overcome traditional installer limitations.

Used: C, C++, WMI, vbscript, Batch, Python, REST, InstallShield, WiX, NSIS, AIK, WinPE, Visual Studio, .NET, C#, gcc, gdb

**Aug/2005 - Oct/2008: Social Sufficiency Coalition**

Begin basic Linux application development.

Design ecology simulation to compare economic model efficiencies.

Develop wiki with autolink and WYSIWYG "pass through" markup.

Design JIT package manager to install and execute advertised features.

Write Intra Owner Trade Agreement as a GNU GPL for physical realm.

Used: C, C++, HTML, CSS, JavaScript, BASH, Emacs Lisp, gcc, gdb

**Aug/2000-Aug/2005: Altiris**

Write thin library to automate resource management and simplify Win32 API.

Design "pass through" interfaces to increase performance and decrease maintenance.

Extend, debug and repair Windows device drivers used to read/write hardware settings.

Write W32 Service to remotely control and report computer settings.

Write simple HTTP and IMAP clients to send commands, and parse results.

Write self-extracting installer conforming to "Add/Remove Programs" guidelines.

Write dynamic virtual file system for incremental backup to removable media.

Used: C, C++, HTML, DDK, Visual Studio

**Aug/1999-Aug/2000: NovaRad**

Integrate DICOM transport and JPEG2k compression into medical imaging client.

Design predictive caching SCSI robotic tape archiver.

Used: C, C++, TCP/IP, Visual Studio

**Jul/1997-Aug/1999: NetSchools**

Develop UDP/IP packet generator and simple sniffer for IR network.

Develop network logon provider using SSPI and Blowfish encryption.

Help develop write-protection for Windows 9x filesystem and registry.

Extend compressing RAM paging driver and keyboard filter VxD.

Used: C, C++, TCP/IP, DDK, Visual Studio

**Jun/1996-Jun/1997: BioVision Motion Capture**

Develop Flex/Bison regexps, BNFs and glue code to import motion capture data.

Develop other tools to simplify and automate motion data transforms.

Use matrix mathematics and spline approximations to smooth sparse data.

Used: C, C++, Visual Studio

**Feb/1996-Jul/1996: IBM Eduquest**

Track and fix application bugs in educational software.

Help write printer driver to translate between Postscript, PCL, PDDP.

Used: C, C++, TCP/IP, Visual Studio

**Jan/1995-Dec/1998: Brigham Young University**

Independent C/C++ tutor.

Teacher's Aid for "Discrete Structures and Combinatorial Mathematics" I and II.

**Education**

**Jan/1994-Dec/1998: Brigham Young University**

B.S. in Computer Science