

## **George R. Whiteman**

Austin TX

[gwhiteman@gwhiteman.com](mailto:gwhiteman@gwhiteman.com)

<http://www.gwhiteman.com>

---

### **Summary:**

Fluent in multiple scripting languages, revision control systems and open source tools. Familiar with GNU/Linux operating systems. Excellent build automation, debugging and documentation skills.

- Python, Perl, Tcl, PHP, Bash scripting
- Build/Test/Deploy Automation
- Linux administration and development tool setup
- FPGA design, Verilog/VHDL coding, EDA tools

### **Experience:**

#### **Dell Inc**

##### **Lead Software Build Engineer**

**Austin, TX**

**12/2009 to present**

Implemented a multisite migration SVN, setup SVN synchronization. Currently working as the Lead Build Engineer supporting multiple build and release platforms.

- Jenkins continuous integration setup and configuration
- OpenSuSE Build System administration and project setup for RPM builds
- VMware virtual machine configuration
- Nagios administration, scripted generation of configuration files
- Configuration deployment using ssh/Fabric scripts
- Administered legacy custom ticket based build environment
- Agile development and Rally tool configuration
- Signing server and obfuscation service integration
- Release management

#### **TekSystems / AT&T WiFi Systems**

##### **Configuration Engineer**

**Austin, TX**

**07/2009 to 12/2009**

Configured Jira and Jira plug-ins, migrated Jira versions.

- Modified Jira workflows and state tables
- Performed Debian packaging and setup deployment to virtual machines

#### **Crossroads Systems**

##### **Senior Software Engineer**

**Austin, TX**

**04/2007 to 01/2009**

Authored scripts to automate software build and release process for virtual tape products. Implemented customer requested enhancements on multiple repository branches.

- Build, test, deploy scripting and automation
- Authored Python, Perl, PHP, Bash scripts and Makefiles
- ISO, RPM, Tarball packaging

- Product enhancements Linux, Apache, PHP, PostgreSQL based product
- Unit testing using PyUnit framework
- SVN, CVS repository administration and conversion
- Configured and maintained Jira issue tracking system, implemented build hooks
- Supported continuous integration build system for multiple projects
- Cross platform XML-RPC communication
- Mediawiki install and upgrade
- MySQL, PostgreSQL, Samba administration
- Linux system configuration

**Motorola Mobile Devices**  
**Digital Hardware Engineer**

**Austin, TX**  
**04/2007 to 01/2009**

Wrote build scripts and makefiles to integrate vendor supplied netlists with internal Motorola VHDL/Verilog intellectual property. Performed FPGA synthesis and backend fitting. Partitioned large RTL designs across multiple FPGAs. Used and authored automated tools to control the build process and generate structural top level RTL.

- Fluent in Python, Perl, Tcl, and Expect
- Familiar with Make driven build environments
- Setup CVS and Subversion for source control and build releases
- Coded automated register map generation tool using Python and libxml
- Coded Python scripts to sort, convert and compare large port lists
- Coded Perl scripts to produce utilization/summary reports for complex SW/HW builds
- Wrote a bus read/write transaction FSM and assembler for verification
- Generated Xilinx embedded logic analyzer cores for real time lab debugging
- Scripted both XST and Synplicity synthesis tool
- Designed FSM and timing generators in both Verilog and VHDL
- Produced Xilinx user constraint files for very large devices
- Produced documentation using HTML, LaTeX, OpenOffice and MS Office

**Cisco Systems**  
**Hardware Engineer**

**Richfield, OH**  
**03/2000 to 11/2005**

Authored a distributed test automation system in Python. Performed board bring-up, temp/voltage margining, power cycling, and data rate testing on prototypes.

- Scripting in Python, Perl, and Expect
- Cisco IOS configuration of terminal servers, routers, switches and wireless access points
- XML-RPC and socket interfaces, SNMP monitoring
- FTP, TFTP, SSH, Telnet, Apache, MySQL setup
- Coded, synthesized and fit multiple projects using Xilinx FPGAs for ASIC verification
- Wrote scripts to perform overnight build automation.
- Converted HDL modules from VHDL to Verilog
- Coded a Viterbi encoder/decoder
- Integrated RAMBIST FSM controllers, RAM collars
- Modelsim test bench development
- HDL Synthesis, Xilinx Place and Route

**Arrow Electronics****Field Applications Engineer****Solon, OH****11/1997 to 03/2000**

Provided technical support for Altera programmable logic devices, Quartus and Max+PlusII development tools.

- Developed intellectual property for use in customer designs
- Design entry using Verilog, VHDL, AHDL and schematics tools
- Recognized for "Outstanding FAE Support" by Altera
- Customer and sales force training
- Supported Altera, Motorola, Intel, TI, AMD, Lattice, Linear Tech

**Nu Horizons Electronics****Field Applications Engineer****Solon, OH****01/1996 to 11/1997**

Performed duties as an applications engineer specializing in active semiconductor components.

- Customer design-in recommendations
- Xilinx FPGA designs, software support, certification
- Sales force training

**Telxon****Senior Electrical Engineer****Akron, OH****08/1993 to 01/1996**

Designed pen based computers and point of sale scanners used in vertical markets.

- C Programming
- Mentor Graphics schematic capture
- BOM product costing
- LCD and battery management hardware and algorithms
- 3D model generation

**Reliance Electric****Hardware Development Engineer****Euclid, OH****08/1991 to 08/1993**

Designed a digital pattern generator for simulation and testing of new products. Developed a fault tolerant live insertion power supply system for programmable controllers. Supported production in the conversion to GAL devices.

- Programmable logic design, ABEL source coding and compilation
- Redesigned power fail circuitry on motor drive controllers
- Deterministic time slotted backplane design
- Orcad schematic entry, Tango PCB layout
- C Programming

**RE Instruments****Systems Engineer****Westlake, OH****04/1989 to 08/1991**

Designed an IEEE488 based instrument for use in high volume production testing of automotive audio products. Responsibilities included test execution software, hardware design and

embedded firmware design. This product was based on 8031 microcontroller and integrated analog multiplexing, serial product communication and parallel fixture I/O into a single unit. Developed instrument drivers using HP BASIC/HP300 series controllers.

- Rack and stack functional tester design
- Embedded IEEE488 instrument design
- HPUX and HP BASIC
- 8031 assembly programming

**NASA Lewis Research Center****Cleveland, OH****Electrical Engineer, Space Station Directorate****04/1987 to 04/1989**

Responsibilities included analysis of data transfer scenarios of the MIL-STD-1553B serial bus used in power switchgear and data acquisition. Monitored hardware design of the Space Station Photovoltaic Controller. Programmed real time simulations for the PVC using an Applied Dynamics AD100 mainframe with a MicroVAX host.

- Network controlled power management and distribution
- High frequency power conversion
- Real time simulation
- MSEE Semiconductor Physics coursework at Cleveland State
- Source evaluation board for the International Space Station

**Education:**

The University of Akron  
BSEE

Akron, OH  
1984

Cleveland State University  
MSEE Coursework

Cleveland, OH

**Additional Training:**

- VMware 4.1
- Java Programming
- Agile Fundamentals

**References:** Available upon request.