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# Gilbert Healton
Status: Immediate
U.S. Citizen

Top 2016 20% poster at
http://stackoverflow.com/users/693294/gilbert

Senior Linux Software Engineer, including perl, web, php, scripting, and data exchanges.

## PROFESSIONAL SUMMARY

Over twenty years of software development and engineering as well as writing documentation, gathering requirements, and some system administration. Work well across corporate and customer cultures. Enjoys writing and has produced a broad spectrum of documentation. Along with writing new code willing to take on legacy applications that are not fun.

## HIGHLIGHTS

Improve efficiency of operations within multiple companies. Arenas include backend, infrastructure, strange, with some Front End. Good success with "angry customers". Documentation often reduces later training times.

## TECHNICAL SUMMARY

- **Core Strengths include:** UNIX/Linux environments (development, shell scripting, networking, tools), new development and legacy environments, requirement gathering, perl (OO, POD, testing), backend and server development, software tools, infrastructure development.
- **Enterprise Arenas includes:**  telecommunications, infrastructure development, network applications, publishing, point of sale, technical support, and presales support.
- **Languages include:** C, Perl (CPAN, DBI, POD, perl-4 through perl-5.18 OO), PHP (composer, framework, php-4 through php-5.5 OO), shell scripts (bash, ksh, sh, zsh, awk, find, sed, grep, sort, ....), JavaScript.
- **Databases include:** mySQL, SQL Server, Oracle (includes Pro*C), PostgreSQL,
- **Operating Systems include:** UNIX, POSIX, Linux (CentOS, Red Hat, Debian, Ubuntu, Mint), HP-UX, Windows-7 and down, and Windows Servers.
- **Server Platforms include:** IBM compatibles, Itanimum, HP-UX Superdome, Sun SPARC.
- **Virtualizers:** Virtual Box, VMWare Server, VMWare Player, Xen.
- **Network and Web includes:** TCP/IP, ssh, scp, sshfs/libfuse, nmap and NSE scripts, HTML (through HTML-4, some HTML-5, CSS), Apache, ISS, and iHTTPD web servers, JavaScript).
- **Source Version Control includes:** git and github, Subversion svn, ClearCase, CVS.

## PROFESSIONAL EXPERIENCE

### Vonage (SmartLink), Holmdel, NJ    2016-Mar to 2016-July

### Position: Contracting PHP Developer in PHP project

Merging code and features from recent acquisitions into a common internal application to manage entire customer life cycle. From prospects to end of contract with heavy focus on sales and correct installation and support.

- Used: Linux, PHP, PhpStorm, PHPunit, vagrant, VirtualBox, perl, shell scripts, Libre Office, docs.google.com, slack.com, JIRA.
- Wrote notes that became "amazing documentation" from onboarding to technical details of product.
- Improved password security of one customer portal. Required architecture meetings, discovering Agile stories, constructing new dev environment, driving QA environment to becoming functional, scheduling coordination across four deliveries to lower risk.
- Improved automated FTP transfer of files from one host to a customer portal. Again, architecture changes were required.
- Helped train a series of new hires that onboarded after myself.

### Kforce "Surge" Effort (Remote)   2016-Mar to 2016-May (two-month contract)
### Position: Subject Matter Expert in bash and perl evolving into project documentation

Member of short term team under a strong non-disclosure agreement applying surge effort to project.
- Used: CentOS Linux,  software development. JIRA and other technologies. NIST.SP.800 guided in effort.
- Created delivery bundle after distributed developers committed their work for Linux and Windows environments. Due to time constraints the bundles were a tar and a zip file. Bundling scripts had to resolve rules about what to include, and under what paths.
- Became principle writer and editor of all user, and some technical, documentation for project after receiving inconsistent and incomplete documentation from developers. Over 70 pages completed in final weeks despite shifting goals.

## IDT Corp    Lakewood, NJ      2015-Nov to 2016
### Position: Linux System Developer

Member of team developing Point Of Sale software product for niche market.
- Used: Lubuntu, github, Cygwin, PHP, shell scripting, perl, Virtual Box, building Debian packages, system and X administration, system installation, touch screens.
- Discover how to configure Lubuntu Linux distribution to meet special needs of product.
- Build make files and Debian packages for distributing product. Maintain customer facing repositories on AWS server an internal repositories on local Linux server.
- Develop shell scripts to automate installing and configuring equipment and, integrating many of these actions into Debian installation packages.

## AT&T (Insys Group)     MIddletown, NJ   2013-June to 2015-Sep
### Position (continued): Production Support Consultant

Member of team providing 24x7 support to a really wide variety of tower support platforms and applications.
- Used: CentOS Linux, Solaris, shell scripts, Wikis, SNMP monitoring tools.
- Analyze and communicate performance and operational issues as well as supporting users.
- Scripts automating manual processes, adding users, monitoring servers and networks, etc., with better logging. Write scripts to manually respond to some legal queries until automated code was completed.
- Corrected much obsolete documentation as well as write much new documentation on various Wikis.
- Inherited support of the largest, petabyte a day, largest distributed cluster, undocumented application that everyone disliked after the former caretaker's contract ran out. Teaming with others was critical here.
- Automated addition and removal of users to some applications to both speed up and improve provisioning.

### Position (original): UNIX, C, Shell Scripts, Consulting Software Developer

Member of team for application supporting 24x7 monitoring of national network of cell towers.
- Used: Red Hat Enterprise Linux ksh scripts, C, multithreading, Intel Itanimum servers, Solaris Servers, shared memory, perl, gawk, high-volume servers, terabytes per-day data flows, HP-UX, Daytona Database, DSQL, structures.
- Improve performance of large Daytona database using native Cymbal language with C support.
- Improve performance of major hourly report that suddenly took over 90 minutes to about 40, with potential to cut down to 20 minutes using multithreaded distributed processing if work deemed worthwhile.
- Created installer script to automate rapid installs of complex application for development and testing in a much more reliable manner. Much documentation written.
- Determine which cell phone did not reliability report key activity used for generating statistical analysis on tower to phone communications used to improve performance and increase network capacities.
- Data exchange: import dirty data files providing phone models, names, IMEIs, etc., cleaning it up for use.
- Fixed and enhanced multithreaded applications receiving and sending feeds to/from external servers.
- Collate and merge incoming information  using C, perl, shell scripts, and Sockets. Also some C++.
- Introduced sshfs mounts between development hosts for more efficient ad hoc bulk file transfers.

- Worked JIRA tickets for bug fixes and feature enhancements.

## Verizon Wireless (Datanomics)   Warren, NJ   (2011-Mar  2013-May)
### Position: Consulting Software Engineer on Point Of Sale's Back End systems

- HP Superdome server, high-volume traffic, perl, HP-UX, VMS, back-end processing, Oracle SQL, byte swapping, VMS, RDB, shell scripts, data structures.
- Wrote utility to work with AccuRev to populate $Header$ records in source files using appropriate version information from AccuRev.
- Helped migrate VMS C applications to HP-UX UNIX C on back-end servers using parallel processing.
  - Created cgi-bin under HTTPi web server to return status test orders and virtual test warehouse as seen by back-end system. This is improving efficiency of testers and developers in diagnosing troubles.
  - Wrote perl utility to automate simpler migration efforts involving syntax, #include files, etc.
  - Reduce migration time by writing C library to perform some VMS actions on UNIX, such as logical variables and selected DCL commands.
  - Migrated DCL commands in system() and pipe() calls to use shell script commands.
  - Reduced migration time by code make some of the massive endianness code changes required between VMS/Sun hosts and HP-UX hosts.
  - Migrated COBOL application on VMS to C on Superdome server with great attention to data types.
  - SQL: Migrated RDB and Pro*C code on VMS into Oracle Pro*C.
- Worked with, and wrote new, C applications distributed over MessageQ and MQ Series middleware.
- Created new back end application interfaces to support new front-end services, such as new sales options.
- Maintained "Virtual Warehouse" that stocked virtual phones for testing ordering and shipping.
- Proposed solutions to a problem with too many instance of the "watcher" program responsible for ringing multiple instances of servers up for parallel processing.

## Job: Numara Software, now BMC (Consultis of Tampa) 2008-Sep to 2011-Mar
### Position: Senior Consulting Software Engineer for Professional Services

- Used: Microsoft Windows, Linux, Solaris, FreeBSD, OO-perl, perl DBI POD and Test::More, most major SQL engines, HTML, JavaScript, CSS, VMWare, Virtual Box, Virtual PC, shell scripting, make, ISS web servers, Apache Web servers, documentation, XML, LDAP.
- Minor to major enhancements to OO-perl FootPrints product. Most enhancements were merged into the product. Required lots of digging into existing code and working with complex hashes and array structures.
  - Built many VMs for Windows (Servers, XP) and Linux systems (Debian, CentOS, ...). Including a SME
  - Reduced consumption of corporate IP addresses by making mail server and LDAP server in VM.
  - Heavy use of perl's Test::More to make regression tests with custom Test::Harness front-end
  - Diagnosed and fixed critical, and highly high visibility, serverity-1 problems at major customers.
  - User Interface design for new features being added to FootPrints product.
  - Assured changes compatible across SQL Server, Oracle SQL, mySQL, and PostgreSQL.
  - Resolve urgent and critical problems at unhappy customers.
  - Proposed changes to the perl style guide to improve programs.
  - Estimated effort for customizations requests from customers, including writing User Interface specification,
- Requirement discovery, requirement specifications, and system design Specifications.
- Wrote more documentation on various subjects than any other developer.
- sshfs mounts between development hosts for more efficient bulk file transfers.

## EDUCATION:
California State Fullerton: Computer Science 1974          Fullerton College: Electrical Engineering 1970