

## **Gilbert Heulton ; Sr. OO Perl-5, Scripts Software Engineer; C, SQL, Backend, Linux, UNIX**

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Availability: Contract has ended. Employment Authorization: US Citizen. Security level: none but expect to pass.

Web links: <http://stackoverflow.com/users/693294/gilbert> top 13% poster; Github: <https://github.com/GilbertsHub>

### **SUMMARY:**

Experienced egoless senior perl developer with recent focuses on backend UNIX and Linux environments. Also currently expert in C and UNIX shells with SQL. Years of working with remote teams.

Diverse software experiences over the full SDLC from requirements gathering, product architecture, Professionally raised in a culture of teamwork and customer support. documentation, implementation, installation and training. Used to distributed teams across corporate structures with technical and non-technical people. Also very strong in OO perl and Unix shell scripts. Writes well received documentation.

Attention to detail so solve problems. Deep into perl and shell languages.

### **SKILLS LIST:**

*Expert:* perl-5 (Object Oriented, POD), Linux, UNIX, shell scripting (bash, ksh, gawk, awk), C, Oracle SQL.

*Strong:* AIX 7.2, perl packages (Template Toolkit, CGI, CPAN) and mod\_perl, learning large SQL DBs,

MySQL, REST, XML, Cron, UNIX compilers, GCC toolchain, Fair: PHP, EDI. AutoSys remote client scripts.

*Intermediate:* JavaScript, HTML/CSS, PHP, Restful APIs, various MQs, git, EDI X20, VirtualBox, VMware.

*Analysis:* Delights in working out logic to new or failing programs and attention to details to work it out.

*Long-term:* Changing mind based on new knowledge. Distributed applications, distributed programming, clustered systems, debugging distributed applications, heavy multiprocessing, globally distributed teams.

Documentation and mentoring. Web meeting and chat tools.

*Web tools:* Atlassian Bitbucket, Confluence and Jira. Also Github, Gitlab, and Jenkins, Bamboo.

Special note: aware of 2038 problem and solutions (was technical admin and tech lead for AT&T Labs Y2K).

Partly remote to fully remote positions.

### **EMPLOYMENT HISTORY:**

***EHI Holding Remote VA ; Mar-2023 to Aug 31; 100% remote*** <https://nttdata.com> via NLBTech.com

Job Title: C, Pro\*C, shell software consultant

Skills: AIX 7.2, C, Oracle SQL, Pro\*C, ksh, bash, make, IWS, git, GitLab, Atlassian Jira and Confluence.

- Closing part of massive HP-UX to AIX migration effort for many hundreds of C, Pro\*C, and shell apps.
- Machine code debugging with dbx to find location of problematic core dump in UAT builds compiled without -g debugging symbols. Learn enough of the Power Architecture to somewhat debug in machine language.
- Shell scripts to automate repeated migrations to get work done more quickly.
- EHI management quietly told me they wished I was in at the beginning of the project as they expected a lot of pain could have been avoided in the early stages of the project.
- Work with IBM Workload Scheduler (IWS) to research, migrate, and test jobs on AIX.
- Helped other developers research difficult problems.
- Commit changes to BitBucket. Review pull requests.
- Do whatever random research need to be done during slow times.
- Consolidate scattered documents so they are easier to find.
- Showed interested parties using unknown or underutilized UNIX tools and migration tips to become more efficient at doing common work. Included vim, ksh, nawk, and avoiding ssh session timeouts on idle.
- Made notes on avoiding common Unix/POSIX migration troubles I've seen multiple places.

**ECS Tuning Remote OH ; Aug-2022 to Sep-2022; 100% remote** Beacon Hill Staffing, Wadsworth OH

Job Title: Perl Developer consultant.

Skills: perl 5, perl OO, perl Test::More, perl Moose. MySQL, MySQL Workbench, sqitch, bash shell, git, GitLab. Ubuntu Linux. Atlassian Jira and Confluence. Google office suite.

- Created new perl module allowing adding a single use statement to old code to properly determine environments of prod, stage, dev, are independent of Linux distributions. Adds new functions to make it much easier for new code to make tests.
- Add features to existing perl code to enhance inventory searches on administrative pages.
- Writing documentation on the undocumented items causing the most confusion.
- Made new Test::More perl scripts and corresponding shell scripts for unit testing.

**Verizon Remote ; Feb-2022 to Aug finance cuts; 100% remote** Pyramid Consulting, Alpharetta, GA

Job Title: Senior C Backend Developer consultant till budget cut surprising my area management.

Skills: C (data structures), Solaris CC compiler and dbx, Oracle SQL, Solaris, shell scripts, RESTful APIs, MQ, git, GitLab. . Agile development with Atlassian tools including Confluence, and Jira.

- Enhancements and fixes to distributed C applications spread across regional server clusters.
- Selected for working priority changes on legacy applications, some of which no one who knew about.
- Helped more junior programmers with onboarding and assignments.
- Using python rather than perl or shells for some throw-away scripting.

**AT&T Labs Remote ; Jul-2021 to Dec-2021 fiscal; 90% remote** Xaxis, via Freehold NJ via DXC/Luxoft

Job Title: Senior C/Linux Developer consultant. Compliance.

Skills: Perl, Linux, RHEL, ksh, bash, C, documentation.

- Help manage disk storage system for production on disk too full alerts. Update related documentation.
- Update Daytona DB Cymbal code to capture an additional column on incoming feeds.
- Enhance existing data barn utilities to help migrate report and maintenance applications utilities clearing obsolete files, monitoring blob use from Azure cloud using azcopy, and reports of recent disk usage.

**Message Systems, Inc; Remote ; Feb-2020 to Jun-2021; 100% remote**

Job Title: Software Developer SMTP Delivery

C, OO perl, Lua, bash, AWS (includes EC2 spin up of AL1 Linux boxes, Athena SQL, use build pipelines), REST APIs and Postman, Macbook Pro Laptop, Strong use of Jira, Kanban, and Confluence

- Update perl and Lua tests to verify changes through all environments for continuous delivery.
- Write perl and shell scripts to help testing and automate repeating activities.
- Enhanced features and fix bugs in MTA product and supporting apps using perl, C, shell scripts, and Lua.
- Work with people across company to understand requirements.
- Make test and production builds and deployment. AWS environment. Use Athena and Circonus
- Use Atlassian cloud based Jira ticketing and Confluence documentation tools.
- High-volume network. Used Ansible to run commands and copy files across host groups in clusters.
- Created and improved documentation for both Google and Atlassian products.
- Write documentation, including on boarding to mostly help me but also help others.

**Energy Harbor; Remote ; Mar-2020 to Aug-2020; 100% remote** via DXC Technology via BC Forward

Job Title: Sr. Linux Shell scripting consultant in energy market.. Short term contract extended multiple times.

Skills: perl, bash, ksh, csh, RHEL, Oracle SQL, Apache configurations. Chaotic environment.

- Helped finish urgent migration of customer application suites from AIX to Linux environments.
- Contract kept being extended until reasonable work I could do was done.
- Quickly completed, largest group of migration tasks for migration of critical legacy AutoSys shell script suites from AIX to Linux environments due to company split-up. "lift and shift" with modifications and some greenfield server deployments.
- Sped migrations by writing perl and shell scripts to scan for change candidates and automating changes.
- Discovering and documenting layout of large undocumented code base.

- Saved time and improved results by adding automated tests in areas without them.
- Discovered a number of errors left in scripts previously migrated to production and proposed fixes.
- Documenting and mentoring and making notes for moving changes to production.

**Estee Lauder Aveda Brand ; Manhattan NY Remote; May-2019 to Oct-2019 RIF; 90% remote**

Job Title: Senior Perl backend Developer (consultant); Position Estée Lauder Aveda brand loyalty.

Skills: OO perl-5, mod\_perl, Apache, templates, MVC, HTML, Oracle SQL, REST APIs, JSON, shell scripts, git, and Jenkins. Atlassian tools including Confluence, Jira, and Bitbucket.

- Helped to finalize migration of customer experience REST API with JSON payloads to new vendor.
- Researched and fixed bugs in MVC “perlgem” perl code base and templates.
- Changed templates generating HTML for front end.
- Used Chrome Developer Tools to study resulting web pages and CSS cascades.
- Debugged and tested RESTful API and code. Use of POSTMAN application to test.
- Greatly improved efficiency of searching and extracting large log files for failure information, or prove lack of same. File format and other considerations made this a non-trivial task beyond simple greps.
- Researched very legacy and obscure perl-5 code for bug fixes and enhancements.
- Documented procedures and information needed to properly do work to reduce future losses in time.

**Verizon Wireless ; Piscataway NJ ; Oct-2016 to Apr-2019 ; via Datanomics ; Red Bank NJ**

Job Title: C Software Engineer (consultant); Position: Point Of Sale backend C and PRO\*C Developer

Skills: C (data structures), Solaris CC compiler and dbx, Oracle SQL, Solaris, shell scripts, OO perl, Rest. SOAP, RESTful APIs, cron, HTML, MQ, Jira, git, and Jenkins. Agile development with Atlassian tools including Confluence, Jira, and Bitbucket.

- Worked on distributed C applications within backends spread across regional server clusters.
- Completed difficult migration of warehouse and inventory C code from legacy platform to SAP based system using XML API.
- OO perl-5 code, lots of it, to scrape logs and generate sample data to support other operations, Perl code was behind multiple reports being emailed out to different front-line and management level people.
- Implemented BE code for new multi-device trade-in option using complex SQL to work within the existing DB and legacy code and consolidating shipping to save money.
- Improved store pickup processing for better customer and manager experiences. This included improving emailing properly respecting time zones of stores and customers rather than using Eastern time.
- Tracked down production failures in X.25 EDI interface used to notify customers of progress of shipments. Wrote program to salvage log and DB data to determine which customers to send “catch up” mail to.
- Used my notes to speed up mentoring and on-boarding of new backend developers.
- Generated shipping events in X.25 EDI format for use in lower test environments to be able to test shipment notifications.
- Continuous enhancements, debugging, and fixing of many backend daemon services. Critical fixes. Cron.
- Extensive middleware, X12 EDI, and TCP/IP communication with other systems using XML, SOAP, RESTful APIs, Oracle Message Queue, IBM Websphere MQ, distributed computing and straight TCP/IP.

**Vonage Networks ; Holmdel, NJ ; May 2016 to Jul 2016 ; via SmartLink ; Annapolis, MD**

Job Title: PHP Software Developer (consultant); Position: integrating new business acquisitions.

Skills: PHP, perl-5, Linux, PhpStorm, MVC, VirtualBox, shell scripts, MySQL, HTML, CSS, git, Jira.

- Strengthened customer FTP portal passwords in difficult legacy perl program customers used to provide portal call records. Much exploration and discovery required due to lack of useful information.
- Reduced “swivel seat” operations by integrating new acquisitions into existing PHP web pages.
- Debugged PHP code and generated web pages using PhpStorm and Chrom Development tools.
- Reduced mentoring times for new hires using my notes that became “amazing documentation”.

**ISenpai ; Manassas, VA 100% remote ; Mar 2016 to May 2016 ; via Kforce Federal Contracts**

Job Title: Perl Subject Expert (consultant); Position: short “surge” support for improving net security products.

Skills: Python, perl, CentOS, MongoDB NoSQL, NIST.SP.800, bash, PowerShell, documentation, Gitlab, Jira.

- Heavy development burst of unclassified network based security project under much of NIST.SP.800.
- Recruited for Linux/perl skills though technologies actually used went far afield from those skills
- Bundled open source network tools in python driven modules to provide more unified and consistent security.
- Last week surprise included the creation of Linux and Windows installation bundles and documentation at end of project. Myself and one other were the only people volunteering to write the documentation.
- Was invited to come back for a second “surge” but had other commitments.

Job Company **IDT ; Brick, NJ ; Nov 2015 to 2016 Jan ;**

Job Title: Linux Engineer for package building and system provisioning software.

Skills: PHP, shell scripts, Ubuntu Linux, Debian packaging, X window configurations, AWS.

- Small team developing new point of sale product targeting existing customers,
- Makefiles to compile code and build Debian packages for publishing on Amazon Web Server (AWS S3).
- Wrote installation scripts to configure hardware and Linux software, including touch screens under X. Bash shell and php scripts.on Amazon Web Server (AWS S3).

Job Company **AT&T Labs ; Middletown, NJ ; Jun 2013 to Sep 2015 ;** via Insys Group, Rochelle Park, NJ

Job Title: C Linux Developer (consultant); Position: BE developer monitoring cell tower performance. DevOps.

Skills: C, gcc toolchain, Linux, Solaris, HP-UX, Red Hat Enterprise, ksh/bash scripts, OO perl-5, distributed applications, read and transform data at terabyte network volumes, SQL, cron, multi-processing, threads, regression tests.

- Performance improvements to applications and report generation, sometimes by 30%.
- Clean incoming dirty CSV files using OO perl-5 enough to successful insert into database.
- Automated installs of apps for developers for both speed and quality using shell scripts.
- Use of huge Daytona Database for AT&T cell tower call records monitoring network performance using C and Daytona's native Cymbal language as well as Daytona's SQL front-end to Cymbal.
- Informal “contests” with coworker who had worked with, and was trained by, David Korn about the who knew more about the ins and outs of the ksh shell. He “won” more than I did, but we both learned a lot.
- Automate securely moving files between development systems with careful sshd configurations.
- Rotated into DevOps during staffing reductions to keep me on.
  - Configured and maintained server daemons and applications. Started automating some with scripts.
  - Extracted information for reports from largest database I have ever used driven by Daytona DB.
  - Improved automation of adding and removing users from clusters of systems.

Job Company **Verizon Wireless ; Warren, NJ ; Mar 2011 to Jun 2013 ;** via Datanomics. Bridgewater, NJ

Job Title: C Developer (consultant); Position: Point Of Sale backend C Developer

Skills: C, shells, OO perl-5, Restful APIs, EDI, HP-UX, Oracle SQL, Pro\*C, VirtualBox, VMS, VMS RDB, COBOL.

- Helped migrate VMS backend C, COBOL, and DCL applications to replatform onto HP-UX UNIX server. Agile.
  - Automated repetitive source changes using perl tool. Included source syntax, #includes, and call changes.
  - Reduced code changes by writing C library to perform some VMS actions on UNIX without changing calls.
- Slashed time testers, developers, and others, spent identifying causes of stuck test orders using OO perl based web server reporting status of test orders and virtual inventory,
  - Nominated for employee of month by lead tester in response to time it saved his group.
- Intensive MQ operations to (APIs to MessageQ, MQ Series), TCP/IP, RESTful APIs, SOAP, XML.

Job Company **Numara Software ; Woodbridge, NJ ; Sep 2008 to March 2011 ; ;** via Consultis of Tampa, FL

Job Title: Professional Services (consultant); Position: Professional Services FootPrints full stack developer

Skills: much OO perl, Windows, Linux, Solaris, FreeBSD, SQL (Oracle, Postgres, MySQL, SQL Server), LDAP, cron, VMware, Virtual Box, JavaScript, shell scripting, Apache & ISS web servers, documentation.

- Extensive work on OO perl product. Grew regression test library using perl's Test::More and shell scripts.
- Proposed changes that were adopted into both the FootPrints installer and product4 style guide.
- Wrote SOWs after estimating effort for customer customization requests, discovering requirements.
- Saved account by remote debugging via Webex for severity-1 problem on remote customer system.

Job Company **Avaya ; Lincroft, NJ ; Jan 2008 to July 2008 ; 6-month ;** via Case Interactive of Farmingdale, NJ

Job Title: C Developer (consultant); Position: Migrate and replatform C and shell application on new servers

Skills: OO perl-5 LWP, DBI::Informix, Net::FTP, Module::Build, C, gdb, make, gcc toolchain, HP-UX, Linux, XML, SVC, shells, IBM MQ Series, Informix SQL, ISQL, team environment, project leadership.

- Replatformed legacy source code software to new servers. OO perl app to pull GPS updates from vendor.
- Migrated legacy DB to new Informix DB server using CLI tools I wrote to extract, transform, and load data.

Job Company **Cheetamail ; City Manhattan, NY ; May 2007 to Dec 2007 ;**

Job Title: OO Perl Developer; Position: Full stack developer for Internet SaaS Email Provider

Skills: Perl, DBI, Apache, TemplateToolkit, mod\_perl, shells, XML, and SQL, UTF-8, Internationalization I18N.

- Added features to new customer GUI for e-mail campaigns. Worked across several development teams using home-grown MVC class, mod\_perl debugging, Oracle SQL, templates, and JavaScript.
- Created documentation on system internals appreciated by developers and other advanced users.

Job Company **Vonage Networks ; City Holmdel, NJ ; Aug 2006 to April 2007 RIF ;**

Job Title: Software Dev; Position: Full stack developer C, OO perl, JavaScript, TCP/IP networking, SNMP.

Skills: Perl: LWP, DBI; RH Enterprise Linux; Solaris; make; shells; package building; rrdtool; Version Control, CVS, svn Subversion, OpenNMS; C; SOAP; network MIBS, rdtool, cron, documentation, requirements.

- Became OID/MIB SME for team scanning VOIP network for new devices, adding to OpenNMS reports.
- Created perl web server cgi-bin to analyze SNMP scan logs to report on device trees.

Job Company **Lumeta Corp. ; City Somerset, NJ ; Mar 2004 to Jul 2006;** via Key Data - March 2004 to Aug 2005

Job Title: Perl Software Developer; Position: IPSonar servers, automated builds, FreeBSD kernel & installer.

Skills: OO perl (LWP, mod\_perl, CGI), refactor, SSL/TLS, C, gcc toolchain, security certs, heavy shell scripts.

- Split large perl server into report and sensor servers exchanging serialized objects across security zones.
- Improved field upgrades to the point customers could often upgrade without Lumeta personnel present.
- Reduced Certificate creation time and improved tracking on internal Certificate Authority system.
- Ongoing build improvements to the point of automated builds using shell scripts, perl, and cron with emailed failure reports. Started PHP work to start basic web access to build system.

## EDUCATION:

California State Fullerton: major Computer Science. Fullerton College: major Electrical Engineering