



## ABOUT ME

I live to learn. I enjoy Systems Engineering, Software Development, Embedded Systems, and many other things. I love to automate things that do not require manual human intervention, and making people's jobs easier. As a hobby I like to work with embedded devices, low-level drivers, microcontrollers, and electronics.

## EXPERIENCE

CURRENT	<b>Computer Science Tutor at PARLIAMENT TUTORS</b> Tutoring on the topics of Linux and Python programming.
MAR 2016	<b>Systems Engineer for FEMA (Contractor)</b>
FEB 2014	<b>Expeditionary Enterprise Engineering (E3)</b> Responsible for administering E3 Linux servers, the Hitachi SAN, and some Windows servers. Also responsible for imaging/testing GIS laptops to deploy to disaster sites. Achievements: <ul style="list-style-type: none"><li>Planned and implemented FEMA/DHS central logging requirements for Linux servers.</li><li>Proactively identified and resolved security issues on public-facing servers.</li><li>Responded to security incidents reported by the SOC.</li><li>Mitigated numerous vulnerabilities as reported by Tenable security scans.</li><li>Analyzed access logs to identify bad requests and block bots typing up resources of DMZ servers.</li><li>Implemented disk-to-disk backups for most E3 Linux servers.</li><li>Implemented time synchronization across all E3 Linux servers.</li><li>Implemented new laptop imaging system with MDT, reducing the time to image laptops by half and reducing human error.</li></ul>
	<b>Developer at NEW LIGHT TECHNOLOGIES, INC.</b> <i>Cloud and Virtualization Solutions</i> Responsible for administering the NLT Amazon EC2 infrastructure. Achievements: <ul style="list-style-type: none"><li>Designed and implemented a web interface for AWS EC2 instances using Django, Celery, Redis, memcached (previously), RabbitMQ, and AngularJS. Deployed with Ansible.</li><li>Designed an Active Directory infrastructure in the cloud for NLT with VPN connectivity.</li></ul>
SUMMER 2012	<b>Developer on iPXE</b> <i>Google Summer of Code</i> Rewrote the Broadcom NetXtreme II NIC driver for iPXE based on the official datasheet and new Linux bnx2 driver. <a href="#">info</a> <a href="#">repo</a>
SUMMER 2011	<b>Developer on OPENIMAGEIO</b> <i>Google Summer of Code</i> Wrote plugin for reading Adobe Photoshop PSD files. <a href="#">tgz</a>
SUMMER 2010	<b>Developer on LIBSDL</b> <i>Google Summer of Code</i> Implemented Windows input method support, allowing text input for Chinese, Japanese, and Korean languages. <a href="#">repo</a>

# OPEN SOURCE PROJECTS

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- ⌘ PASTELY PYTHON,ES6  
An online code paste service using React, Django, Ansible, Docker, and Kubernetes.  
**Note:** Limited browser support due to use of CSS flexbox. Try modern Firefox/Chrome.
- ⌘ NCTGPIO C  
FreeBSD driver for the GPIO functionality of the NCT5104D Super I/O chip.  
Committed to FreeBSD.
- ⌘ FPANELKB C,ASM  
USB HID device firmware for the front-panel of a Speco PC Pro CCTV DVR.  
Support included for the buttons, knobs, LCD, and infrared remotes.
- ⌘ VC0706 C++  
Software to control a VC0706-based JPEG camera via a computer serial port.
- ⌘ MCP23008 C++  
mbed library for the MCP23008 I/O expander. Tested on an LPC1768.
- ⌘ SEAGATE-LEDS C++  
Linux software to control Seagate external hard disk LEDs and query feature information.  
Involved reverse-engineering some Windows software and some firmware.
- ⌘ SFTTF C++  
TrueType font support for SFML.

# TECHNICAL SKILLS

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	Used Very Often	Used Frequently	Used Occasionally
<b>Skill/Technology</b>	Linux (RHEL, many) Ansible Python Django C/C++ Bash Docker AWS EC2/VPC, etc.	Kubernetes Terraform Jenkins Apache, Nginx HTML,CSS Javascript/ES6/JSX React I2C/TWI, SPI, GPIO	Golang, Java CoreOS FreeBSD AngularJS 1 Google GCE/GKE Microsoft Azure Windows Server 2012 PowerShell Active Directory / LDAP VMware vSphere 5/6

# CERTIFICATIONS

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- Red Hat Certified Engineer (RHCE)
- Red Hat Certified System Administrator (RHCSA)
- AWS Certified Solutions Architect - Associate
- AWS Certified SysOps Administrator - Associate
- AWS Certified Developer - Associate
- CompTIA Linux+/Network+/A+
- Linux Professional Institute LPIC-1
- SUSE Certified Linux Administrator
- Microsoft Certified Professional (MCP)

## OTHER OPEN SOURCE CONTRIBUTIONS

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UBUNTU	Reimplemented type-ahead find in Nautilus. Code is now maintained by Canonical and is present in Ubuntu 14.04+. <a href="#">bug</a> <a href="#">launchpad</a>
WIRESHARK	Improved USB packet heuristics to recognize some SCSI protocol elements. <a href="#">bug</a> <a href="#">git</a>
NAUTILUS	Fixed a bug that caused CPU exhaustion in Nautilus. <a href="#">git</a>
EPIPHANY	Fixed multiple bugs. <a href="#">git</a>
GNOME	Fixed a bug in GNOME System Log. <a href="#">git</a>
TIGERVNC	Fixed a bug causing constant crashes on Windows platforms. <a href="#">github</a>