**JUSTIN T. KNOX, B.Sc., C.C.**

+1 (843) 534–6040 | [justin.knox@posteo.de](mailto:justin.knox@posteo.de) | Ann Arbor, MI

<https://linkedin.com/in/justintknox> | <https://github.com/jknoxdev> | <https://n3s.io>

**SUMMARY:**

• L3 Networking & Systems Engineer with 20 years of experience in the tech industry.

• 10+ years of professional experience in automation, support, and development.

• Demonstrated leadership, problem-solving and adaptability with expertise in mentoring, training and end-user focus.

**EXPERIENCE:**

**Systems Engineer** ​​June 2023 –​ Present​

Corewell Health, Critical Environment Engineering (CEE) | Contract, MaTech Resources | Onsite to eventual %20 Remote | Grand Rapids, MI

Collaborated with the cross-functional agile train to deploy, provision, and maintain the companies existing and future infrastructure across OSI L1-4.

• Doubled the production compute infrastructure within a 40% faster than estimated delivery time through providing experienced deployment methods using industry best practices.

• Decreased CEE related incidents by 4% through complete audit and documentation overhaul for the East MI region (in progress).

• Saved the company an estimated 8-10 hours / week / person in labor through developing and deploying the “Generate Decom” feature for the internal DC inventory system. (in progress)

**Skills:** SQL· JavaScript · GitHub· Python · PowerShell · Bash · Splunk · SCADA

**Network Engineer II** March 2023 –​ June 2023​

jPeg Design | Research & Development, Deployment, Support & Maintenance| Direct-Hire |100% Onsite | Dundee, MI

Collaborated with a 3-person team to design, deploy and maintain small to medium business infrastructure, utilizing all layers of the stack.

• Developed the company’s first inventory, customer, client and installation databases, effectively eliminating 15 hours / week / user for prior data entry.

• Developed in-house automation software, including password management and deployment monitoring software.

**Skills:** PostgreSQL · Python · GitHub · Azure PostgreSQL · AWS · GCVE · PowerShell · Bash · MoiP· Cisco CLI

**Freelance Technical Consultant, CTO** December 2021 –​ March 2023​

Alchemy Computing, Dumptd | Research & Development, Systems Architecture | Direct-Hire | 100% Remote | Washington DC

Supported small – medium business infrastructure, utilizing all layers of the stack.

• Main focus was on developing and implementing features and coordinating with engineering teams for the prototyping of front end and back-end systems in the development and deployment of company infrastructure. Primary clients were in the startup space.

**Skills:** Laravel· Ruby· Ruby-on-Rails· PHP· TomTom API· Google Maps API· Ansible· Docker· Python · GitHub · RedHat KVM· Docker· GCVE · Active Directory· Windows Server 2016· MoIP· VoIP· Cisco CLI· Juniper· pfSense · PlatformIO · JSON · HTML · MySQL· PostgreSQL · OpenBSD · IPTables · Palo Alto Firewalls · RFID · QR-Code Programming

**Infrastructure Operations Engineer II, GCVE Tech Lead** December 2018 –​ December 2021​

Google | Engineering Field Services, Server, Network & Hardware Operations Teams | Tech Level 3, External Direct-Hire| Reston, VA

Worked in the L4-5 global EFS team covering all architectures for the entirety of the Google production fleet. Collaborated with a ~12 member team to lead projects and teams to deploy, maintain and configure the production infrastructure from Layers 1 – 4 of the OSI model.

• Provided zero loss to five-9 SLO and SLA during the 400% increase to production load of the Covid-19 outbreak with an 80% reduction in staff.

• Saved the company an estimated $450k in lost compute time to isolate an issue occurring on the power line which took 8 months to gather the data for conclusive enough evidence to change the design.

• Led the project team which deployed 1/3 of the GCVE infrastructure in which we were able to complete the project 75% ahead of schedule. All contractors on the team were converted to full time.

• Built and deployed globally distributable internal systems monitoring, configuring and reporting software to effectively eliminate 80% of my original job functions.

• Hosted and developed internal “lunch&learns” covering Emacs, Linux and systems analysis w/ 12-20 people in typical attendance.

• Received 19 Peer Bonuses and 2 Challenge Awards for Hurricane and Pandemic Support

**Skills:** SQL· GSQL· Kubernetes · CI/CD· HTML· JavaScript· CSS· Bash· C++

**Network Operations Technician** July 2017​ –​ December 2018​

Switch LTD | Network Operations | Contract to Hire | 100% On-site | Las Vegas, NV

Coordinated with engineering teams to provide infrastructure support.

• Implemented custom programmed outlook filters combined with email lexical analysis to autogenerate tickets based on customer emails saving approximately 65% of time spent answering emails.

**Skills:** AutoHotkey · BGP · PowerShell · Splunk

**Systems Administrator IV** October 2016​ –​ June 2017​

Pinnacle Community Services | Information Technology | Direct-Hire | 100% On-site | Las Vegas, NV

Worked in a marketing automation platform organization, assisting businesses of various sizes. Collaborated with a 1,200-person team to improve security and comply with SOC 2 and PCI-DSS. Led projects to strengthen security processes and promote best practices.

• Developed internal file-share-system and converted over to bring organization into HIPAA compliance.

• Created Porteus system images to access in-house customer care system from Windows XP machines for approximatley 30 remote sites.

• Secured the companies intersite trunks over to use IPSec over GRE on Cisco and Avaya infrastructure.

• Saved the company approximately $80k from unneeded legal hours through conducting an in-house investigation using the Sleuth digital forensics toolkit to procure documents required for discovery.

**Skills:** Cisco· Avaya· Windows Server 2012· Active Directory· Samba· Kerberos· Porteus Linux· Java· PowerShell · BSD

**Technical Specialist II** November 2013​ –​ April 2015​

Scientific Games | Technical Documentation and Training | Direct-Hire | 100% On-site | Las Vegas, NV

practices.

• Brought travel expenditures down by 95% through creating a digital library of in-house training videos through the Casino Laboratory that our team also created.

• Saved approx. 650 hours / week in labor through consildating the Geographic Dependent Jurisdiction codes technicians were sourcing in to a single database.

**Skills:**  Microsoft SharePoint· Arch Linux· PHPFM· MemCache· NGINX · Apache· Wordpress · Jekyl· Markdown · Yammer

**Freelance Technical Consultant** September 2009​ –​ November 2013​

Alchemy Computing | Information Technology | Las Vegas, NV

practices.

• Focused specialties included in-home PC Repair, small website development, electronics prototyping.

**Skills:** C++ · OpenCV · Java · Processing · NodeJS · Bluetooth Protocol · RTSP · MIDI · ClamAV · Malware Removal · Digital Forensics · Data Recovery

**Network Event Management Technician III** May 2008​ –​ September 2009​

British Telecom| Converged Services Management Center| Contract-to-Hire | 100% On-site | El Segundo CA

Assisted with the internal acquisition of Infonet’s global NOC to the UK’s infrastructure.

• Kept the UK’s network functional through the 2008 Olympic games through acquiring total coverage over the management platform for OSI L1-3 over a Cisco, Juniper, Alcatel-Lucent, Cienna mixed platform.

**Skills:** MPLS, EIGRP, IGRP, SDH, PDH, ATM Frame-Relay, TCP/IP V4/V6, SIP, ARP, CDP, CARP, EIGRP, OSPF, BGP, VTP, Etherchannel, 802.1Q trunking, QoS, Multicast, 802.11a/b/g/n/ac, IPSec, LDAP, RADIUS/TACACS+, SNMP, NTP, VRF and HTTP/HTTPS

**Junior Electronics Engineer** June 2006​ –​ November 2007​

Synetcom Digital | Research and Development | Direct-Hire | 100% On-site | El Segundo, CA

Worked in the engineering team developing industrial SCADA radios for monitoring digital IO, 4-20ma sensor loops, PWM, and industrial video applications.

• Provided increased customer acquisition through developing the GUI for the PLC system’s first user control panel.

• Prevented external theft of IP through securing the internal LAN communications prior to one particular vendor visit.

**Skills:** digital IO · Industrial Automation · 4-20ma sensor loops · PWM· Allen Bradley · PLCs · PIC Programming · BASIC Stamp Development · Propeller Chip· FHSS · Antenna Design and Implementation · EagleCAD · EWB · National Instruments · Oscilloscope · Function Generator · Traffic Generators · Standard Laboratory Equipment · Spectrum Analyzer · Embedded Linux · Windows CE · C++ · Ladder Logic

**Tutor and Laboratory Technician** March 2004 - June 2006​

DeVry University | Network Laboratory | Direct-Hire | 100% On-site | Long Beach, CA

Tutored students in the network security and advanced micro peripheral courses. Focused specialties included:

• Network Design, Engineering & Architecture

• Cisco CLI commands, interfacing and scripting.

• Implementing network configurations with Java

• Network Packet analysis

**Skills:** C++ · Java · Wireshark · Cisco · Novell · Windows 2000 Networking · RedHat Linux · Gentoo · TCP/IP Packet Optimization

**EDUCATION:**

University ABC City, ST

M.B.A. Program Name, Honors Graduate, GPA if above 3.5 Month YYYY​

* Thesis: Be brief, describe your if your degree required a thesis.
* Relevant extracurricular

University/College Name City, ST

B.S. Full-Time Program/Associates, Honors Graduate, GPA if above 3.5 Month YYYY​

* Successfully completed thesis research project on the impact of employee motivation on organizational performance and developed a policy framework to enhance motivation within an organization.
* Relevant extracurricular

**CERTIFICATIONS/PUBLICATIONS/PROFESSIONAL ASSOCIATIONS:**

- CVEs, if you have multiple then this section could go before work experience

-Relevant certifications and expiration date in priority order: CISSP goes before CEH or Security+.

-Relevant publications including published articles on Medium, LinkedIn, and blogs

-CVEs if you have them might go before certifications.

**SKILLS:**

-Languages: C/C++, Python, Javascript, HTML, Embedded C/C++, C#, .NET

-Kali: bash, VI, WPScan, Wireshark, nmap, scapy, Metasploit, Meterpreter, DirBuster, Aircrack-ng, DNSRecon, enum4linux, exploitdb, binwalk, zaproxy

-Windows: Sysinternals, Powershell, Windows Subsystem for Linux, WMIC, Firewall, and Registry

-Virtualization: ESXi, VMware, VirtualBox, Docker, AWS EC2

**PROJECTS:**

-Home lab running ESXi with appliances including Security Onion, Splunk, and an isolated 30-VM training range designed to practice red and blue team efforts

-JaegerShell: a custom PowerShell suite that launches Sysinternals for DFIR practices that automatically parses responses into JSON and pushes high likelihood responses to a personally trained AWS Sagemaker instance

**VOLUNTEER/LANGUAGES/AWARDS:**

* Awards: Awards you won for performance or competitions.
* Social Languages: Conversational in XXX, Studied XXX in Country

You don’t need to list references or add a “references available on request.” If they want references, they’ll ask.