

# JUSTIN KNOX, CISSP

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## SUMMARY:

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- Networking, Systems & Cyber Security 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 project delivery.

## EXPERIENCE:

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### IT/OT Infrastructure Administrator, Cyber Security

Sep 2023 - Present

Great Lakes Water Authority, Operational Technology, Cyber & Information Systems Security

Direct-Hire | Onsite to 20% Remote | Detroit, MI

- Piloted a credential management system, increasing department-wide password complexity by 8%.
- Implemented TLS 1.3 authentication for an increase of authenticated sessions by over 12%.
- Designed, developed and deployed an Internet Protocol Address Management (IPAM) platform on PostgreSQL, Redis and Jenkins web-based technologies.
- Built and tuned an internal SIEM; to provide increased visibility into network related events.
- Developed and implemented internal malware analysis processes, categorization and archival systems.
- Designed and constructed an internal Change Management system for production related changes.
- Conducted the 2023q4 and 2024q1 internal security audits in preparation for the Quantitative Risk Assessment utilizing the AWWA, NIST 800-153 & CSF 2.0 frameworks.

**Skills:** PowerShell · ReST API · AD Administration · x509 · tcpdump · nc · nmap · Nessus NASL · SCADA

### Systems Engineer

June 2023 – Sep 2023

Corewell Health, Critical Environment Engineering (CEE)

Contract-to-Hire | Ma-Tech Resources | Onsite to 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.

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

**Skills:** Industrial PME · DCIM

### Network Engineer

March 2023 – June 2023

jPeg Design | Research & Development, Deployment, Support & Maintenance

Direct-Hire | 100% Onsite | Dundee, MI

- Worked in a 3-person team to design, deploy and maintain small to medium business infrastructure.
- Developed the company's first inventory, customer, client and installation databases.
- Developed in-house automation software, including password management and deployment monitoring software.

**Skills:** PostgreSQL · Python · Git · Azure · AWS · MoIP · Cisco CLI

### Freelance Technical Consultant

December 2021 – March 2023

Alchemy Computing, Dumptd | Research & Development, Systems Architecture

Multi-Contract | 100% Remote | Washington DC

Coordinated with Start-Up engineering teams for the prototyping of front and back-end systems in the creation, securing and deployment of company and production infrastructure.

**Skills:** Laravel · PHP · TomTom & Google Maps API · Ansible · VoIP · Cisco CLI · Juniper · PostgreSQL · RFID · QR-Code Programming

### Operations Engineer II / Data Center Technician III

December 2018 – December 2021

Google | Engineering Field Services; Server, Network & Hardware Operations

Direct-Hire | 100% On-site | Charleston, SC; Reston, VA

Worked in the 12-member global EFS team covering all deployment architectures for the full-breadth of Google's production fleet.

- Provided zero loss to five-9 SLO and SLA during the ~400% increase to production load during the Covid-19 outbreak with an 80% reduction in staff.
- Led the project team which deployed the GCVE East-Coast and completed the project 75% ahead of schedule.
- Built repairs automation software which monitored, configured and automated 80% of server diagnosis, repairs and ticket closure. Measured an 800% decrease in server repair over time for the regions in which this software was ran.
- Received 19 Peer Bonuses and 2 Challenge Coin Awards; Commendable Service during Hurricane Dorian, and same during Pandemic Support.

**Skills:** Bash · Bigtable · Protocol Buffers / ProtoBuff · Python · Planet-Scale CI/CD · Borg (aka Kubernetes)

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**Network Operations Technician**

July 2017 – December 2018

Switch LTD | Network Operations

Contract-to-Hire | TekSystems | 100% On-site | Las Vegas, NV

Worked in one of the largest datacenters on earth, with customers ranging from 1RU to multi-campus deployments.

- Developed automation of email using lexical analysis to automate ticket handling, saving approximately 65% of time spent.

**Skills:** AutoHotkey · BGP · PowerShell

**Systems Administrator IV**

October 2016 – June 2017

Pinnacle Community Services | Information Technology

Direct-Hire | 100% On-site | Las Vegas, NV

Worked in an in-home care facilities provider for Elderly and Autistic individuals.

- Developed and migrated internal file-share-system to bring organization into HIPAA compliance.
- Secured the companies trunks using IPsec over GRE on Cisco and Avaya infrastructure.
- Conducted internal digital forensics investigations using the Sleuth toolkit.

**Skills:** Cisco · Windows Server 2012 · Active Directory · Samba · Porteus Linux · Java

**Freelance Technical Consultant**

April 2016 – October 2016

Alchemy Computing | Information Technology

Multi-Contract | 100% On-site | Las Vegas, NV

- Focused specialties included small to medium business PC Repair, website development, electronics prototyping.

**Skills:** A+ · Malware Removal · Digital Forensics · Data Recovery

**Technical Specialist II**

November 2013 – April 2015

Scientific Games | Technical Documentation and Training

Direct-Hire | 100% On-site | Las Vegas, NV

- Brought travel expenditures down by 95% through creating training videos.
- Saved 650 labor hours / week through consolidating a spreadsheet-based software tracking system into a single database.

**Skills:** SharePoint · Arch Linux · PHPFM · Memcached · NGINX · Apache · WordPress · Jekyll · Markdown · Yammer

**PRIOR EXPERIENCE:**

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British Telecom, El Segundo, CA - Network Operations Center - **Network Event Management Technician**

Synetcom Digital, Torrance, CA - Research and Development - **Junior Electronics Engineer**

DeVry University, Long Beach CA - **Electronics and Development Lab – Academic Tutor & Faculty Assistant**

**EDUCATION:**

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(IN PROGRESS) M.S.C.S. Data Science and Intelligent Systems

University of Tennessee, Knoxville

(PROJECTED) December 2025

(ONLINE) Knoxville, TN

**B.Sc. Computer Engineering Technology**, Cum Laude, GPA: 3.6

DeVry University, Long Beach

March 2008

Long Beach, CA

- Best Senior Project, 2008, “Fingertip Effects”. Machine vision Java, C++ & Assembly application.
- Associated Student Body President, Spring 2005 – Fall 2005, Spring 2006-Fall 2007

**CERTIFICATIONS/PUBLICATIONS/PROFESSIONAL ASSOCIATIONS:**

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**CISSP / Certified Information Systems Security Professional**

International Information System Security Certification Consortium, ISC2, Member ID: 954626, Active as of: March 2024

**SEC+ / Security+**

Computing Technology Industry Association, CompTIA, Candidate ID: COMP001022411475, Active as of: December 2023

**ISACA Member**

Information Systems Audit and Control Association, ISACA, Member ID: 2063351, Active as of: August 2024

**Amateur Radio Technician Class License**

Federal Communications Commission, FCC, Callsign: KF8BVZ, Active as of: July 2024

**VOLUNTEER/LANGUAGES/AWARDS:**

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**Languages:** Studying Spanish, German (Pre-A1) and Portuguese | **Awards:** Best Senior Project 2008.