

# Justin Knox, CISSP

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## SUMMARY

Network & Cyber Security Engineer with 20 years of experience in the tech industry, specializing in automation, support, and development. Proven leadership, adaptability, and mentoring skills with a strong focus on cybersecurity and project delivery.

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## EXPERIENCE

### **IT/OT Infrastructure Administrator, Cyber Security**

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

**Detroit, MI** | Onsite to 20% Remote

September 2023 – Present

- Leveraged AWWA, NIST 800-153 & CSF 2.0 frameworks to enhance cybersecurity infrastructure.
- Piloted TLS 1.2 and x509 certificates for DNS encryption across Purdue Level 4 and DMZ systems.
- Integrated legacy IP datasets into a unified IPAM system using PostgreSQL, Redis, and Jenkins.
- Automated server lifecycle management using PowerShell and Bash.
- Developed Cisco network analysis tools and M365 Change Management tools for Active Directory.
- Improved password complexity in credential management by 8%.

### **Systems Engineer**

*Corewell Health, Critical Environment Engineering (CEE)*

**Grand Rapids, MI** | Onsite to 20% Remote

June 2023 – September 2023

- Built and deployed production infrastructure 40% faster than projected timelines.
- Applied industry best practices for optimized deployment methodologies.

### **Network Engineer**

*jPeg Design*

**Dundee, MI** | 100% Onsite

March 2023 – June 2023

- Deployed Layer 1-3 network infrastructure, security systems, and physical access controls.
- Developed in-house password management and monitoring tools using Python and Scapy on AWS/Azure.

### **Freelance Technical Consultant, Startup CTO**

*Alchemy Computing, Dumpt'd*

**Washington DC** | 100% Remote

December 2021 – March 2023

- Led engineering team for network infrastructure deployment and Laravel/PostgreSQL prototyping.
- Provided network engineering support for Juniper-based AMEA networks.

### **Operations Engineer II / Data Center Technician III**

*Google*

**Charleston, SC; Reston, VA** | 100% Onsite

December 2018 – December 2021

- Led the GCVE East-Coast deployment project, completing 75% ahead of schedule.
- Developed automation software to streamline server repairs, resulting in 800% efficiency gains.
- Awarded 19 Peer Bonuses and 2 Challenge Coins for exemplary work during Hurricane Dorian and the pandemic.

### **Network Operations & Data Center Technician**

*Switch LTD*

**Las Vegas, NV** | 100% Onsite

July 2017 – December 2018

- Conducted security audits and physical pen-testing for large-scale customer deployments.
- Automated ticket handling using PowerShell and AutoHotKey, reducing processing time by 65%.

### **Systems Administrator IV**

*Pinnacle Community Services*

**Las Vegas, NV** | 100% Onsite

October 2016 – June 2017

- Implemented HIPAA-compliant security solutions including firewalls and encrypted storage.
- Conducted digital forensics investigations in compliance with legal standards.

### **Freelance Technical Consultant**

*Alchemy Computing*

**Las Vegas, NV** | 100% Onsite

April 2016 – October 2016

- Provided IT services including network design, virtualization, and electronics prototyping for SMBs in legal and financial sectors.

### **Technical Specialist II**

*Bally Technologies, Scientific Games*

**Las Vegas, NV** | 100% Onsite

November 2013 – April 2015

- Built the company's first internal training portal, reducing travel costs by 95%.

### **Freelance Technical Consultant**

*Alchemy Computing*

**Las Vegas, NV** | 100% Onsite

September 2009 – November 2013

- Provided IT and network engineering services including website development and malware removal for SMBs.

### **Network Event Management Technician III**

*Infonet, British Telecom*

**El Segundo, CA** | 100% Onsite

May 2008 – September 2009

- Managed incident response for OSI L1-3 on MPLS & BGP, Cisco, Juniper & Alcatel-Lucent platforms.

### **Junior Electronics Engineer**

*Synetcom Digital*

**El Segundo, CA** | 100% Onsite

June 2006 – November 2007

- Assisted in the development of industrial SCADA radios and implemented AES-128 encrypted radio links.

### **Academic Tutor, Faculty Assistant & Lab Technician**

*DeVry University*

**Long Beach, CA** | 100% Onsite

March 2004 – June 2006

- Tutored students in network security and micro peripheral courses.

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## **EDUCATION**

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

*University of Tennessee, Knoxville*

Projected: December 2025

### **B.Sc. Computer Engineering Technology**

*DeVry University*

March 2008 | Cum Laude, GPA: 3.6

- Best Senior Project 2008: "Fingertip Effects" (Machine Vision with Java, C++, Assembly).

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## CERTIFICATIONS & ASSOCIATIONS

- **CISSP** | International Information System Security Certification Consortium (ISC2)  
Member ID: 954626 | Active as of: March 2024
- **Security+** | Computing Technology Industry Association (CompTIA)  
Candidate ID: COMP001022411475 | Active as of: December 2023
- **ISACA Member** | Passed CISA Exam, Credential Pending | Information Systems  
Audit and Control Association (ISACA) | Member ID: 2063351 | Active as of: August  
2024
- **FCC Amateur Radio Technician Class License** | Federal Communications  
Commission (FCC) | Callsign: KF8BVZ | Active as of: July 2024

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## SKILLS

- **Languages:** C, C++, Java, JavaScript, Shellcode, LaTeX, PowerShell, Ruby, Python, Assembly
- **Type I Hypervisors:** Hyper-V, KVM, ESXi, BSD
- **Type II Hypervisors:** Docker, VirtualBox, VMWare
- **Cloud Platforms:** AWS, Azure, GCP
- **Security Frameworks:** AWWA, NIST 800-153, CSF 2.0
- **Tools:** PostgreSQL, Redis, Jenkins, PowerShell, Bash

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## PROJECTS

### "Homelab"

- Palo-Alto PA-500 FW, ProxMox VM environment w/ TrueNAS, PiHole DNS, OPNSense firewalls.

### "Cyboard" - Longboard Security System and Datalogger

- Raspberry Pi smart skateboard with GPS, motion detection, and data logging using Python, SQLite.

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## VOLUNTEER WORK / LANGUAGES

- Studying: Spanish, German (Pre-A1), Portuguese
- Awards: Best Senior Project 2008