

# KEEGAN CRUTE

Detroit Metropolitan Area

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## SUMMARY

Systems & Cloud Support Engineer with experience operating across complex, cross-platform environments involving identity, automation, security, and collaboration systems. Strong background in Azure AD/Entra ID lifecycle management, Microsoft 365 administration, DNS/DHCP fundamentals, and virtualization basics (Hyper-V/VMware).

Experienced in troubleshooting authentication and MFA issues, cloud service performance problems, and cross-stack failures spanning identity, networking, and applications. Designed and built Python and REST API automation to improve reporting, configuration validation, and operational scale across 300+ organizations. Recognized for rapid learning, deep technical troubleshooting, and authoring clear documentation and SOPs that improve reliability and efficiency.

## EXPERIENCE

### **Security, Systems & Cloud Support Engineer**

*Bullfrog Group, LLC — Troy, MI | Sep 2024 – Nov 2025*

Supported large-scale, cross-platform cloud environments across identity, endpoint security, cloud platforms, and systems infrastructure, serving 300+ organizations. Provided Tier 2/3 support across Azure AD/Entra ID, Microsoft 365, Windows/Mac/Linux endpoints, and cross-stack cloud access issues.

- Diagnosed user provisioning and identity lifecycle issues, MFA/SSO authentication failures, conditional access and permission conflicts, certificate/authentication errors, and cloud login issues across Azure AD/Entra ID, Microsoft 365, and connected SaaS applications.
- Deployed and maintained Cisco Secure Endpoint (EDR) and Umbrella Roaming Client; performed DNS-layer investigations, reviewed Umbrella security policies, and remediated endpoint and network access issues.

- Supported virtualization-adjacent issues, including Hyper-V VM access, RDP session troubleshooting, GPO/OU alignment, and Linux-based EDR and automation agent deployments.
- Delivered 60+ cloud application deployments (Webex, Secure Endpoint, Umbrella), including Azure AD integration, RBAC and permission mapping, device provisioning, lifecycle configuration, CRM integration, and IT administrator/end-user onboarding.
- Conducted 60+ structured training sessions for IT administrators and end users covering cloud platforms, identity integrations, and administration best practices.
- Designed and built a production-grade Python automation toolkit supporting large-scale Webex environments, automating PSTN discovery, license and overage auditing, OAuth token lifecycle management, configuration validation, and structured data extraction across 300+ organizations.
- Managed a Linux (Ubuntu Server) automation host running cron-driven reporting pipelines and OAuth-authenticated API jobs supporting customer success, engineering, and accounting teams.
- Authored SOPs, runbooks, onboarding workflows, and troubleshooting guides spanning identity integrations, cloud administration, endpoint security, and automation processes.

### **Help Desk Specialist (Tier 1–2)**

*Bullfrog Group, LLC — Troy, MI | Jun 2024 – Sep 2024*

- Provided Tier 1–2 support for identity, endpoint, networking, and cloud access issues across diverse customer environments.
- Resolved DNS/DHCP conflicts, VPN failures, certificate and authentication errors, and Microsoft 365 access issues.
- Supported user onboarding, account lifecycle management, device provisioning, and cloud application setup.
- Improved internal documentation and troubleshooting procedures to increase team efficiency and consistency.

### **Customer Service & Operations Roles**

*Various Employers — 2014–2024*

High-volume customer-facing experience across hospitality, retail, and fitness environments. Developed strong communication, reliability, and service-oriented skills that underpin my approach to technical support, troubleshooting, and customer engagement.

- Handled daily customer interactions, issue triage, and service escalations

- Trained new staff on procedures, tools, and task workflows
- Maintained accuracy and reliability in fast-paced environments
- Built strong communication, de-escalation, and problem-solving skills

## **CORE SKILLS**

### **Systems & Cloud:**

Windows Server (foundational), Azure AD / Entra ID, Microsoft 365 administration, identity lifecycle and access troubleshooting, cloud application deployment and integration (Webex, Microsoft 365), virtualization fundamentals (Hyper-V, VMware), VM provisioning basics, Linux fundamentals

### **Networking:**

DNS, DHCP, TCP/IP, NAT, VPN, DNS-layer security and troubleshooting (Cisco Umbrella)

### **Security:**

Cisco Secure Endpoint (EDR), Cisco Umbrella (Roaming Client, SIG-A/E), Cisco Secure Email Threat Defense, log analysis, MFA and SSO troubleshooting (Duo, Entra ID)

### **Automation:**

Python scripting, REST APIs, OAuth flows, JSON, Git/GitHub, Bash (Zsh), PowerShell fundamentals

### **Operational:**

SOP and runbook creation, customer and administrator training, cross-team collaboration, cross-platform cloud troubleshooting, systems thinking

# **AUTOMATION & ENGINEERING PROJECTS**

## **Python Automation Toolkit (Webex)**

Designed and built a production-grade Python automation toolkit supporting large-scale Webex environments. Automated reporting, OAuth token lifecycle management, identity and authentication data extraction, license and overage analysis, PSTN discovery, and configuration validation across 300+ organizations.

## **EDR & DNS Security Deployment**

Deployed and maintained Cisco Secure Endpoint (EDR) and Cisco Umbrella Roaming Client; performed DNS-layer investigations, validated security blocks, and supported policy application and troubleshooting across endpoint and network access layers.

## **Cloud Identity Troubleshooting Lab**

Diagnosed identity and authentication issues including user provisioning and sync failures, MFA/SSO errors, DNS misconfigurations, permission conflicts, and certificate-related issues affecting cloud login flows.

## **CRM + Cloud Automation**

Built internal Zoho CRM → RevIO automation using API calls and Deluge scripting to streamline customer onboarding, account provisioning, and operational data flow.

## **Browser Workflow Extension**

Published a Chrome/Firefox extension enabling click-to-dial functionality and workflow automation for customer service and sales teams.

## **Linux & Virtualization Lab**

Built Linux (Ubuntu Server) and Windows virtual machines using VMware and VirtualBox to practice identity integration, endpoint security deployment, service hosting, and systems troubleshooting.

# CERTIFICATIONS

## **Security & Cloud Security:**

- Cisco Secure Endpoint Deployment Stage 2
- Cisco Umbrella MSSP Console Onboarding
- Cisco Security Essentials Stage 1

## **Systems, Networking & Infrastructure:**

- Cisco Meraki Network Associate (CMNA)
- Cisco AIOps Stage 1
- Webex Control Hub Professional
- Webex Contact Center Expert
- Cisco Collaboration SaaS

## **Customer Experience & Service Management:**

- Cisco Customer Success Manager
- ITIL v4 Foundation

## **Data, AI & Modern IT Foundations:**

- Cisco AI Data Fundamentals

# EDUCATION

Associate of Applied Science — **Cybersecurity**  
*Oakland Community College | 2022–2024*