

# Joe Held

*Technical Writer & Systems Engineer | Infrastructure & Integration Specialist*

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## PROFILE

Versatile Technical Writer and Systems Engineer with a strong foundation in secure system deployment, infrastructure integration, and enterprise-scale documentation. Proven ability to translate complex technical systems into clear, accurate, and audience-specific documentation. Experienced in developing SOPs, UI documentation, deployment guides, and internal knowledgebases. Skilled in programming, scripting, and maintaining infrastructure in AWS, Linux, and Windows environments. Holds active DoD TS/SCI clearance and has contributed to major initiatives for DHS, DoD, DISA, USMC, and other federal clients.

Blends expertise in network architecture, AV-over-IP, cybersecurity, virtualization, CAD-based infrastructure design, and control systems programming. Proven ability to bridge AV/IT domains to deliver scalable, resilient, and high-availability systems. Adept at cross-functional collaboration, documentation, stakeholder engagement, and operational excellence.

## CORE COMPETENCIES

- **Enterprise Systems Integration**
- **Secure Networks & VLAN Architecture**
- **Windows Server & M365 Administration**
- **Infrastructure & Control Automation**
- **Technical Documentation**
- **Virtualization & Cloud Migration**
- **CAD Drafting & 3D Modeling**
- **Systems Architecture & Planning**
- **Cross-Team Collaboration**

## CERTIFICATIONS

**AVIXA** - CTS-I, CTS

**Dante** - Level 1, 2, 3

**CompTIA** - A+, Network+, Security+

**QSC** - Q-SYS Level 1, 2

**Extron** - Control Specialist, AV Associate

**Biamp** - Tesira

**Crestron** - DMC-E-4K, DMC-D-4K, IVC-E (Intelligent Video Engineer), DCT-C, TCT-C, Flex, P301

**US Coast Guard** - Captain's License, 100 Ton Master

**AMX** - Programmer, Technician (Enova)

**OSHA 30**

## PROFESSIONAL EXPERIENCE

### **Systems Engineer / AV Programmer** - *Vision Technologies*, Baltimore, MD

March 2024 — Present

- Programmed and deployed complex Crestron and AMX systems in secure and classified network environments for clients such as DHS, FDA, FCC, DoD, and USSS
- Optimized AV-over-IP networks and control systems, ensuring minimal downtime and compliance with information assurance policies.
- Authored technical documentation and deployment guides used for classified system rollouts; worked cross-functionally with engineering and IT to ensure accuracy, maintainability, and operational clarity.

### **Systems Integration Engineer** - *Defense Information Systems Agency (DISA)*, Ft. Meade, MD

December 2022 - March 2024

- Led system integration efforts for enterprise-scale conference and communications systems across classified networks using Crestron NVX and IP-based switching.
- Served as SME for AV and IP-based infrastructure, supporting operational continuity across DISA facilities.
- Developed and maintained networked system diagrams, software configurations, and device programming for secure and redundant operations.
- Developed and maintained embedded control code for user interface logic within proprietary automation platforms for secure classified systems.

### **Project Engineer, AV & Infrastructure** - *Visual Sound Inc*, Baltimore, MD

March 2022 - January 2023

- Designed and commissioned AV/IT systems for enterprise, education, and government clients with a focus on signal integrity, network segmentation, and IT compliance.
- Performed systems validation, BOM review, and technical oversight from presales to post-deployment.

### **Project Manager, Systems Deployment- Design & Integration**, Baltimore, MD

September 2019 — March 2022

- Managed high-complexity systems integration projects from design through turnover, including stakeholder coordination, subcontractor supervision, and QA.
- Led cross-discipline teams on projects valued up to \$5M across federal, higher education, and commercial sectors.
- Authored internal training programs to onboard and upskill junior engineers.

## **Systems Engineer, Media & IT - *University of Baltimore*, Baltimore, MD**

December 2017 - September 2019

- Designed and maintained multi-use AV/IT spaces integrating networked media, conferencing, and control systems.
- Delivered broadcast-quality media and collaboration solutions for university departments.

## **IT Systems Administrator - *Ayers Saint Gross*, Baltimore, MD**

April 2014 — September 2017

- Managed hybrid infrastructure and spearheaded the firm's first cloud migration from on-prem Exchange to Microsoft 365.
- Hardened backup systems to resist ransomware threats and decreased recovery time from days to minutes.
- Served as lead admin for CAD, BIM, and creative software deployment across a distributed enterprise.
- Designed and deployed internal knowledgebase using MediaWiki on a local WAMP stack; structured multi-tiered access for L1-L3 support, authored SOPs replacing unreliable Lotus Notes system.

## **TECHNOLOGY STACK**

**Networking:** VLANs, DHCP, static IP schemes, Managed switches (Cisco, Netgear, Extreme)

**Servers & Systems:** Windows Server, Linux, Active Directory, M365, SCCM

**Cloud & Virtualization:** AWS, Azure, M365, Google Workspace, VMware

**CAD & Documentation:** AutoCAD, Revit, SolidWorks, Bluebeam, signal flow and rack elevation drawings, 3D solid modeling, MediaWiki, Markdown

**Programming & Scripting:** SIMPL, SIMPL#, NetLinx, Lua, Python, Java, PowerShell, HTML/CSS

## **EDUCATION**

University of Maryland, College Park, MD | August 2019 — Present

**Bachelor of Science, *Computer Science***

Community College of Baltimore County, Catonsville, MD | August 2010 — June 2013

**AAS, *CADD for Architecture and Engineering***

## PROJECT HIGHLIGHTS

### Secure Tri-Class VTC SCIFs (Various Sites)

**Client:** *United States Department of Homeland Security*

**Scale:** *Large (\$1M - \$5M)*

*Led programming and infrastructure integration for secure environments with strict IA compliance. Enabled seamless operations across multiple classification levels.*

### Enterprise Infrastructure Refresh

**Client:** *US Defense Information Systems Agency (DISA)*

**Scale:** *Enterprise (\$5M+)*

*Migrated legacy AV and control systems to IP-based architecture using Crestron NVX, enhancing security, scalability, and remote support capabilities.*

### Recording Studios and Suite

**Client:** *Baltimore School for the Arts*

**Scale:** *Small (\$0 - \$500k)*

*Engineered cost-effective multi-use studio with live streaming, recording, and audio/video engineering and editing capabilities. Integrated control and networked audio systems.*

### USMC Commandant Briefing Room, The Pentagon

**Client:** *United States Marine Corps*

**Scale:** *Mid-Size (\$500k - \$1M)*

*Commissioned secure communications and display systems for high-level government use with zero-failure tolerance.*

## SECURITY CLEARANCE

- Active DoD TS/SCI Clearance

## AVAILABILITY

Open to local on-prem, hybrid, or fully remote roles. US citizen, eligible for work on secure government and defense-related projects. Relocation or contract-based employment negotiable.