

Joe Held

Systems Engineer | Infrastructure & Integration Specialist

443.824.2250 | joe.held@gmail.com | heldsystems.net

PROFILE

Multidisciplinary Systems Engineer with a strong foundation in infrastructure integration, secure system deployment, and enterprise-scale solutions. Holds an active DoD TS/SCI clearance, AVIXA CTS-I certification, and a US Coast Guard Master Captain's License. Experienced leading the design, implementation, and lifecycle management of systems across secure government, defense, corporate, and higher education environments.

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.
- Collaborated with IT and engineering teams to develop documentation, deployment guides, and support tools for scalable infrastructure rollouts.

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.

TECHNOLOGY STACK

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

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

Programming & Scripting: SIMPL, SIMPL#, NetLinx, Lua, Python, Java, PowerShell

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

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

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.