David Nesting

david.nesting@gmail.com, Washington, DC
github.com/dnesting

I am an engineering leader, with an emphasis in complex systems, reliability, resiliency, security, and solving problems. My superpowers include working with empathy, communicating with non-technical leaders, and adapting. I enjoy edge cases, adversarial thinking, and being hands-on. My interests range from hacking electronics to public policy.

Qualifications

- Can effectively lead small incident response task forces and large product delivery teams
- Can understand, build, and troubleshoot complex systems at all layers of the stack
- Can design and build complex systems with reliability, security, and privacy in mind
- Can write efficient and readable code (Go, Python, others)

Overview of security clearances available on request.

Experience

Self-Employed, March 2025 - Present

- Artificial Intelligence and Software Defined Radio projects, public safety communications incident tracking, SDR orchestration on Kubernetes, AI agent workflow and orchestration. Primarily working in Go and Python.
- Wrote multiple Ubiquiti- and HikVision NVR-related wireshark dissectors to investigate a network intrusion
- Reliable and secure network design and deployment for a 30-unit residential building
- Guest Lecturer on Resiliency and Privacy Engineering for the Vanderbilt Policy Accelerator

Expert Witness, Electronic Frontier Foundation (EFF), April-May 2025

- Consulted on IT modernization, cybersecurity, and privacy
- Testified as an Expert Witness at the US District Court for the Southern District of New York

Vega-Bray Observatory Rehabilitation, March 2025

- Rehabilitated the Observatory's telescope, which had not seen light in 15 years
- Reverse engineered the dome control system and the telescope's drive and tracking system
- Built a custom hardware control system for the telescope's stepper motors, and wrote custom drive and tracking software in C/C++ (Arduino)

Office of the Federal CIO, The White House (OMB), 2024-2025

AI and Cybersecurity Advisor to the Federal CIO

- AI, Cybersecurity, Reliability and Resiliency, and Technology Modernization policy and implementation advisor to the Federal CIO

- Artificial Intelligence Lead at OMB, collaborating heavily between IT, policy, records, and legal teams
- Built on-premise AI platform proof of concept and associated tooling, using Go and Kubernetes with NVIDIA H100 hardware.
- Technology Advisor to the OMB Chief Information Officer on AI, SRE/operations, data, cybersecurity, and modernization
- Led a cross-functional Technology Modernization Fund discovery effort and co-authored a $~100M modernization proposal

Rebellion Defense, 2021-2023

SRE and Infrastructure Team Manager

- Ran the Site Reliability Engineering and Infrastructure team at Rebellion Defense, a startup building AI-powered defense software.
- 12 SREs and SWEs, mostly senior/staff level
- Platform was based on AWS, Kubernetes, and novel infrastructure
- This was a highly hands-on role, with ~50% of my work as an individual contributor

US Office of Personnel Management, 2019-2021

Deputy Chief Information Officer

- Managed a ~750-person federal CIO organization with a $100M/year budget
- Led a mainframe modernization activity to improve OPM's resiliency against single points of failure
- Introduced modern collaboration tools, such as Zoom and Slack, to prepare the agency for extended COVID-19 telework
- Advised the CIO on security, risk, modern practices, resiliency, and engineering
- Led a deep dive into call center issues resulting in disasterous customer experience. Built a fully-functional, call-accepting reproduction of the call center using cloud tools in about 3 hours to disprove the belief that this was a multi-year level of effort
- One time I had to build a Prometheus-based monitoring system in Go in order to effectively troubleshoot a problem for which we had no visibility
- One time I had to reverse engineer the agency's correspondence tracking system because it finally died and nobody knew how it worked, wrote an entirely new system in Go to allow users to access their data and extract records for archival

US Digital Service, The White House (OMB), 2014-2019

Director of Engineering from 2017-2019:

- Mentored a community of ~50 SREs, SWEs, and Data Engineers, supervising work assuments for 25
- Represented engineering and IT to agency and White House leadership, including to Cabinet officials
- Recruiting, speaking at round tables and conferences
- Helped build the engineering hiring process

Site Reliability and Security Engineer from 2014-2019. Projects included:

- Multiple rapid response and modernization efforts, including security and availability incidents, at HHS/CMS, GSA, State, Army, DOJ, and other agencies
- Security Engineering, performing code reviews, advice on prioritization and mitigation.
- One time I wrote a Go-based ASP parser and data flow analyzer to automatically generate code fixes for thousands of vulnerabilities in a government system
- Various projects, researching and advising on security threats and capabilities of nation-state adversaries in classified and unclassified contexts
- Built and conducted bi-monthly security training and workshops for USDS
- Built and managed multiple internal tools in Python and Go, plus dozens of small software projects as part of my agency engagements

Google

Site Reliability Engineer from 2007-2014 (7.5 years), on the logs infrastructure team, managing all layers of the logs infrastructure, including hardware, OS, and service, and supporting Google's legal and privacy teams. Projects included on-call, data integrity, privacy, access control, data availability, large-scale data migration, security, and hiring.

AT&T

Technical Architect and similar roles, from 1999-2007 (8 years), as a technical lead supporting www.att.com and similar sites. Shifted team from a traditional production operations team to a DevOps model.

Texas Networking, Inc.

Engineer, from 1995-1999 (approx.), as a member of the engineering staff. This was a small/startup regional ISP.

Education

Texas A&M, Computer Engineering, 1998