

FRANK G. HELLWIG

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Solution Architect and business growth professional creating innovative solutions to win contracts and exceed our customers' expectations. I am dedicated to advancing agile methodologies, cloud technologies, and software engineering in solving challenging problems and delivering solutions. I have been in the technology field for over three decades and have operated at all levels – from designing and delivering software to building a company and winning contracts for my current employer. Recent wins: DEA Bluestone (\$875M) and EPA ESSET (\$550M).

I combine years of hard-won knowledge and intense customer engagements with my ability to clearly communicate these lessons and turn them into solutions that win business. Proposals I have authored show our customers that we understand their problems and have a vision to do it better than the last team. I speak well, write well, and deliver deeply technical issues with clarity.

EDUCATION

Master of Science, Computer Science Johns Hopkins University, Baltimore, MD	1994
Bachelor of Science, Electrical Engineering Northeastern University, Boston, MA	1985

CERTIFICATIONS

Certified SAFe 5 Program Consultant	2020
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PUBLICATIONS

Cloud Migrations - Lessons Learned [link] ACT-IAC White Paper	2018
Security Considerations for DoD Cloud Migrations [link] Buchanan & Edwards White Paper	2017
5 Reasons to Move Your Line-of-Business Applications to The Cloud [link] LinkedIn Article	2016
Implementing Associations [link] Dr. Dobb's Journal Article	1998
A Secure SDS Software Library [link] Eleventh National Computer Security Conference Paper	1988

SOCIAL

Member of ACT-IAC and former co-chair of the Cloud Migration Working Group sponsored by the ACT-IAC Cloud Community of Interest.

Proponent and contributor of open source software with over two dozen public repositories on my GitHub site. [\[link\]](#)

As a commercial, instrument-rated pilot, I have been a member of the Aircraft Owners and Pilots Association (AOPA) for fifteen years.

SKILLS

- Cloud: Microsoft Azure, Azure Active Directory, Amazon Web Services (AWS)
- Security: Blockchain, Common Access Card, PKI, RSA, AES
- Interoperability: REST, JSON, HTTPS, Microservices, XML, XSLT, SOAP, AJAX
- Back End: Node.js, Express, Java, Python, C, ASP.NET MVC, PHP
- Front End: React, Electron, HTML5, CSS3, Vue.js, AngularJS, jQuery, JavaScript, X11
- Infrastructure: Azure DevOps, Git, GitLab, GitHub, NPM
- Identity Management: OAuth2, Federation Authentication, Cloud Identity Management
- Database: SQL Server, SQLite, PostgreSQL, MySQL, ER Tools, Entity Framework, JDBC
- Business Development: Excellent at proposal technical volume authoring and solutioning
- Customer Relations: Focused on a customer-in Agile Scrum experience
- Public Relations: Comfortable developing and delivering seminars and presentations
- Technical Writing: Principal author of numerous published and unpublished papers

EXPERIENCE

Vice President, Solution Architecture
GovCIO, Fairfax, VA

July 2020 – Present

Within Growth Enablement Team, I deliver innovative and workable solutions to that win business for our company. I research ways to improve our Pwin and promote innovation as the means to engage new customers and bring ideas to existing customers. Over the past year, I was the principal SA on bids totaling \$1.6 billion TCV in single-award prim contracts for the U.S. Government.

Director, Technology and Innovation
Huntington Ingalls Industries, Fairfax, VA

January 2020 – June 2020

In an advancement from my previous position with Huntington Ingalls Industries, I was in a forward-looking capacity for corporate technical innovation. This included being a member of our Cloud Center of Excellence (an AWS environment including GitLab and a DISA IL4 infrastructure) for hosting programs for customers requiring CUI. I designed, developed, and deployed various LOB applications that give our internal teams the tools for Bid and Proposal estimation and Annual Operation Plan prediction based on Markov modeling.

Director, Solution Architecture
Huntington Ingalls Industries, Fairfax, VA

September 2018 – December 2019

Managed a team of solution architects within the business development organization. We developed technical architectures and solutions that won business and further the company's technical footprint. My role as a technical expert, mentor, and consultant was to keep an eye out for technology trends, specific technology directions, and products that we can use, integrate, and deploy to both execute current business better and be competitive in our proposal responses.

My team authored proposal solutions and stood up proof-of-concept applications that showcased our capabilities in a way that was compelling and understandable. Filling gaps that our customers were experiencing and anticipating gaps our customers may have in the future. I was a thought leader in putting our organization in a position to meet customer needs ahead of our competition.

Director of Engineering
Buchanan & Edwards, Arlington, VA

May 2012 – September 2018

Corporate leadership role as a technology evangelist designing, developing, and delivering enabling cloud and on-premises platforms for the Department of Defense, Department of State, and the Department of Justice. Responsible for business development, program execution, internal research and development, corporate engineering initiatives, and technology accelerators.

Technical lead on winning a \$100M contract for the U.S. Marine Corps Recruiting Information Support System (MCRISS). We then delivered the remote desktop application allowing recruiters to perform all functions on disconnected laptops (in network challenged environments such as shopping malls, kiosks, etc.) with complete sync once connectivity is established. We completed in nine months what other contractors over the preceding three years failed to deliver by using an Electron-based framework that included CAC authentication.

Designed, developed, and deployed (including ATO) the first public cloud application for the U.S. Department of State. This was a job clearing house application for United Nations positions and was a key win for Microsoft as it was one of the first Azure sites for the U.S. Government. It is still in operation many years later. [\[link\]](#)

Delivered the original version of the State Department's Smart Traveler iOS and Android application giving international travelers quick access to State Department information feeds. [\[link\]](#)

Designed and developed a prototype emergency management system using PhoneGap for single-source deployment to both Apple and Android devices. There is a video illustrating this work. [\[link\]](#)

My team developed and delivered the Public Diplomacy Implementation Plan application to all U.S. Embassies around the globe via Microsoft Azure. This included advanced technology from Expert AI providing Natural Language Analysis in summarizing implementation plans.

Managing Principal
LynxBridge, LLC, Herndon, VA

October 2008 – April 2012

Founded a small fifteen-person consulting company focused on providing skilled consultants in both the public and private sectors. As the CEO, managed technical delivery, payroll, business development, corporate and financial compliance, and secured our GSA Schedule 70 contract.

Enterprise software architect on the Blue Devil Block 2 program. This Intelligence, Surveillance, and Reconnaissance platform was a 350-foot airship with 2,000 pounds of intelligence equipment.

Chief software architect for the Vigilant program, a Northrop Grumman effort providing a collaborative intelligence system for first responders and border security for North Africa [\[Link\]](#).

Principal engineer for various Northrop Grumman programs providing intelligence to the war fighter using mobile devices including iPhones and iPads. Provides geospatial intelligence with connectivity to back-end intelligence systems.

Technology Fellow
Wells Landers, McLean, VA

October 2005 – September 2008

Project lead supporting the Defense Common Ground Station for the Army (DCGS-A). Extensive and detailed programming experience integrating the DCGS metadata catalog in an enterprise-wide architecture. Created a Google Earth interface in Java to DCGS-A that displayed intelligence data on the Google Earth globe. This gave the war fighter an easy-to-navigate interface for searching and viewing signals intelligence, imagery, and IEDs.

Chief Scientist 1998 – 2005
RABA Technologies, Columbia, MD

A consulting company that originally focused on the intelligence sector and then expanded into a variety of additional government and commercial areas. As a senior member of the staff, I had experience in both winning and executing on a number of projects for our Maryland customer.

Senior Software Engineer 1993 – 1997
Boeing Defense and Space Group, Hanover, MD

Most of my time with the Boeing Defense and Space Group was spent working on the Enhanced Tactical Radar Correlator (ETRAC) ground station for the [U-2](#) high-altitude reconnaissance aircraft. The ETRAC system provides commanders with imagery-based battlefield intelligence derived from the Advanced Synthetic Aperture Radar System-2 (ASARS-2) radar sensor carried on board the U-2 aircraft.

Software Engineer 1989 – 1993
GTE Government Systems, Rockville, MD

GTE Government Systems supplied the intelligence community with complete systems and consulting. Developed several systems and applications for our Maryland and Virginia customers.

Systems Engineer 1989
BiiN Federal Systems, McLean, MD

BiiN was a short-lived joint venture between Intel and Siemens to develop fault-tolerant computers. As a pre-sales engineer, my job was to evaluate and respond to proposals and determine how the company's products could best serve the customer's needs. They closed in October 1989.

Signal Corps Officer 1985 – 1989
U.S. Army, Fort Meade, MD

Program manager of the Secure Battle Management Processor program in support of the Strategic Defense Initiative (SDI). This was a strategic program for the nation as its promise of detecting and destroying incoming ballistic missiles was one of the factors causing the Soviet Union to overspend on defense and was a contributing factor to that country's eventual collapse. I specialized in secure battle-management computers and was on the Government's source selection committee for the National Test Bed, a \$500M effort for proving SDI hardware and software.

Co-Op Student 1980 – 1985
Northeastern University, Boston, MA

Worked for various technology companies in the greater Boston area. Work included developing embedded microprocessor-based test equipment, engineering the transmitter logic for an anti-aircraft missile system (RADAMS), and designing equipment for measuring drift between atomic frequency standards such as those used for GPS.

PERSONAL

I am married and spend my free time on flying, hiking, home improvement, family time, and personal growth researching new technologies and finding ways to work more efficiently. Fluent in German, some French, and currently learning Spanish.