

IAN NELSON

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SUMMARY

Full-stack software engineer with over 15 years of development and analysis experience solving some of the nation's most difficult problems inside of the Intelligence Community and U.S. Military. I pride myself on work ethic, a consistent commitment to learning new technologies and am passionate about working on challenging problems with others.

SKILLS

- Eloquent writer, speaker and presenter.
- Quick to learn business processes, systems, and architectures in a new environment.
- Able to communicate effectively between business, technical, and sales staff members.
- Quick to provide training and mentorship to junior members of the team.
- Fluent and practiced in Agile/Scrum project methodologies (Certified ScrumMaster cert.)
- Able to participate as an individual team contributor or manage teams where needed.
- Practiced "outside the box" thinker.

SOFTWARE

	Beginner	Expert
JavaScript / Node.js	●●●●●	
HTML5 / Web Libs.	●●●●●	
Java	●●●●●	
Go	●●●●●	
Python	●●●●●	
Linux Systems / CLI	●●●●●	
Spark / Hadoop	●●●●●	
Ansible	●●●●●	
AWS / Cloud PaaS	●●●●●	
Git + GitHub Workflow	●●●●●	

EDUCATION

University of Maryland, University College

January 2010 – May 2012

B.S. in Computer Science

Adelphi, MD

- Nominated to Dean's List every enrolled semester, and invited to join Sigma Alpha Pi as an honor student. Graduated with Honors (Cum Laude, 3.75 GPA)

Arkansas Tech University

August 2007 – December 2008

B.S. in Computer Science

Russellville, AR

- Served as a team leader and university representative for Association for Computing Machinery (ACM) software development competitions.
- Also served as an official tutor for the Computer Science department, mentoring more than 30 students in basic and advanced computer science concepts, data structures, and principals of mathematical application.

EXPERIENCE

Coalition

Principal Software Engineer

April 2018 to Present

San Francisco, CA (Remote)

- Leading company efforts in Customer Security Team.
- Developed scalable client security analysis service in parallel with business product team.
- Worked with security engineers to help implement autonomous versions of tradecraft trials.
- Worked with junior engineers to assist in technological design approaches and mentoring.
- Implemented system queuing and task dispatch system using Apache NiFi.

[redacted]

Infrastructure Lead / SRE

July 2016 to April 2018

Elkridge, MD + Remote Work

- Performed budgetary analysis and procurement execution of primary data center.
- Designed and implemented data center buildout, including system deployment, networking, and software implementation.
- Led effort to host and implement a JAMF instance to autonomously manage company iPhone and MBP fleet.
- Implemented program for vendor relationships with third-party where necessary.
- Helped to develop initial prototypes of analysis software for client research.
- Helped to support corporate operations team with subject matter expertise on client analysis as required.
- Designed and implemented continuous integration and deployment techniques for development team

IronNet Cybersecurity

Senior Software Engineer

October 2014 to July 2016

Fulton, MD

- Technical lead for streaming analytics effort. This product capability was implemented using data from a distributed Kafka bus to Spark Streaming. This architecture served as an interface to models performing unsupervised learning in near real-time.
- Served as the technical oversight staff member for the president of the company's Technical Division. This effort was critical in identifying technical issues during system and software integration as appliances were deployed into customer environments. In addition, worked with members of all component development teams and infrastructure personnel to adjust software design and implementation mechanics, ultimately leading to better continuous deployment.
- Designed and implemented several prototypes of a large-scale node graph visualization (100K+ nodes), giving full network situational awareness as a next-generation capability.
- Designed and implemented the first prototype and implementation of the product's user interface and RESTful API. Used a combination of AngularJS, Node.js, MongoDB and WebSockets to produce a fully streaming architecture to receive information and alerts from the product processing pipeline.

Clarity Innovations

June 2015 to Present

Member, Technical Advisory Board

Columbia, MD

- Assisted company executives in determining common technology trends to efficiently execute multiple contracts using a single development implementation.
- Worked with executive team to assist in contract acquisition and business analysis.

National Security Agency

April 2012 to October 2014

Technical Director

Fort Meade, MD

- Led three teams of 70+ software engineers developing OZONE Platform and the OZONE Widget Framework. This software was instrumental in government use by multiple agencies (Intelligence Community, U.S. Military, Social Security Administration, etc.) to conduct integration activities at a low-cost through an easy to use web application framework.
- Led the technical effort to implement the Intelligence Community (IC) Application Mall as part of the IC IT Enterprise activity to consolidate common infrastructure across agencies. Worked to solve elastic architectures needed to support Internet-scale user loads, and additionally worked with ODNI technical staff to ensure security mechanisms supported multi-agency access.
- Worked with network engineers to produce open-source prototype SDN controllers and enable collaboration between government, industry, and academic partners.

Akimeka

August 2011 to April 2012

Senior Technical Consultant

Honolulu, HI

- Served as a technical consultant to senior site personnel for visualization and web application development. Effort consisted of a triage to determine native (C++/Java) applications widely used by site personnel, determine the feasibility and level of effort required to transition as a web application, and work with teams to develop prototypes for testing.
- Led effort to develop a new HTML5 audio spectrum analyzer in ExtJS 4.x for use within the Ozone Widget Framework. This capability was used as the center point of audio processing workflows across various analysis threads.
- Led effort to design and prototype a geospatial analysis processing capability using Hadoop and Apache Accumulo. This effort was instrumental in correlating events to specific locations across a massive dataset within the cloud, with an aim to further enrich data processing capabilities across the site.

TexelTek

Software Engineer

January 2009 to July 2011

Honolulu, HI

- Worked on a team consisting of multiple contract organizations as part of the Ozone Widget Framework (OWF). Responsibilities included development of the Preferences server using Grails technology and its integration into the user interface.
- Worked under Real-Time Regional Gateway (RT-RG) contract at customer site. This project consisted of an analyst suite of web applications (approximately 70), and OWF-compatible container technology. Primary responsibilities include the transition of the original codebase into a large suite of widgets and the construction of a new widget container. These widgets and container technology leveraged ExtJS technology for rapid prototyping, and a full suite of REST services in PHP. This project required development, maintenance, and support for a broad range of needs across more than 300 concurrent users.
- Worked on visualization technology for web applications that included WebGL, HTML5, and external libraries. These prototypes were used for graphing, data visualization in multiple dimensions, and other requirements.
- Served as contract system administrator on site. This responsibility included the installation, configuration and maintenance of development and production environments, maintenance and upkeep of an Apple-based development lab, and continued maintenance and configuration of various data feeds in a replicated relational database architecture.
- Served as contract security manager on site. This responsibility included the successful Authority To Operate (ATO) on the development and production systems. Additionally, operated as a technical consultant to site senior personnel for software development, testing procedures, hardware deployments or configuration, and security related issues.

U.S. Army

Signals Intelligence Analyst - MOS 35N (formerly 98C)

January 2002 to July 2007

Schofield Barracks, HI

- Served as an U.S. Army intelligence analyst at NSA/CSS Hawaii. Managed and provided time-sensitive reporting on a vital strategic element.
- Served as a developer to expand mission capability and automation on multiple projects. Developed and implemented a new capability to manage and analyze information on a vital intelligence target resulting in an increase of overall intelligence knowledge and reduced reporting time by two-thirds.
- Developed and implemented an automated process to convert between English and a major Asian language in real-time and batch applications. This provided NSA/CSS Hawaii with a unique tool that dramatically reduced transcription times.
- Developed and implemented a Java data analysis tool for NSA/CSS Hawaii for a specialized target that was used as an interface by contractors in a larger corporate tool suite. This tool was later integrated as part of a site-wide deployment.
- Assisted IA lead in efforts to understand and develop an intelligence capability against new technology in use by an entity of national interest.
- Led the NSA/CSS Hawaii effort to direct intelligence flows and structure, dramatically increasing the effectiveness and efficiency of both tactical and strategic intelligence reporting.
- Led the NSA/CSS Hawaii effort to optimize the processing and handling of a new intelligence source. This effort created a baseline from which the unusual could be highlighted for analysts. This effort dramatically increased the intelligence value for both national and theater customers.