

# JASON HOWARD WOHLGEMUTH

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## KNOWLEDGE

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### Programming

- (*Experienced*) PowerShell, Python, C#, F#, ECMAScript (JavaScript), Node.js, HTML/XML/CSS
- (*Familiar*) Julia, Rust, ReasonML, Clojure, ClojureScript, WebAssembly, Kotlin, Elm, R

I used Python for my Master's thesis — published in the journal, Complex Systems

## SKILLS & EXPERIENCE

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### Mathematics, Operations Research, & Data Science

- During my Master's studies, I studied Operations Research for over a year including the basics and a Python program to leverage genetic algorithms to solve a problem with no closed form solution.
- My Master's thesis was an original topic of my own conception and **leveraged network analysis** to analyze small world networks created from Facebook data. See publications section.
- As a developer, I have years of experience working with geospatial visualization technology. I am a CesiumGS/cesium contributor.

### Design, DevSecOps, & Robotic Process Automation (RPA)

- Team lead well versed in Agile methodologies and experienced with developing and deploying software via an iterative process focused on speed and sustainability.
- At USSTRATCOM, designed a visual grammar in order to create detailed process documentation. The documentation is intended to help **architect sustainable solutions** in an effort to improve efficiency and mission readiness. Efforts directly contributed to **data modernization** of division.
- As a BAE Systems principal engineer, consulted on multiple projects across BAE Systems and mentored developers on a daily basis
- Created a CLI tool to help create sustainable solutions with web technologies. I maintain this project and leverage it to codify and share my knowledge in order to facilitate continued learning for me and others.
- **Maintain security baseline** by monitoring releases, reviewing change logs, integrating version updates, submitting security impact reports, and training co-workers on modern trends and technologies.
- I regularly leverage software and services to implement RPA solutions for myriad task types like writing code and creating data visualizations.

Visit my GitHub account for examples of my coding ability — like my PowerShell module, Prelude

### Training & Mentorship

- As a principal engineer at BAE Systems, developed and delivered numerous presentations on web technology
- As a Command Training Team officer liaison, guided the planning and implementation of new training practices and procedures that included achieving 100% compliance with new Navy SAPR training guidance.
- Maintained 100% readiness as the branch Training Officer ensuring that personnel were always ready to meet mission objectives.

Naturally, I use web technology to create my presentations (ex: Reveal.js and Spectacle.js)

## Engineering & General Management

- As a division officer on a submarine, supervised the daily operations of a nuclear reactor and engine room at sea and in port, maintaining electrical power to vital systems throughout the submarine.
- Led teams through complex technical procedures, during maintenance and casualty situations, maximizing efficiency while maintaining a safe environment.

## CAREER TIMELINE

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### 05/22 - Present, *Geospatial Data Scientist*

@ORNL

- Work closely with senior R&D professionals, providing impactful machine learning engineering and advanced analytical contributions to the conceptualization and design of new approaches that solve pressing national security challenges.
- Provide coding support to implement new algorithms as proof of concept or prototype to test effectiveness and scalability of the proposed solutions.
- Work in a highly collaborative environment with data scientists, machine learning scientists, remote sensing scientists, engineers, physicists and geographers to deliver systems from prototyping to production level.

### 03/20 – 04/22, *Operations Research Analyst / Data Scientist*

@US\_Stratcom

- Contributor to the DoD Artificial Intelligence Design Engineering for People and Technology (ADEPT) framework.
- Deputy team lead and Information System Security Manager (ISSM) for multi-million effort in support of national objectives
- Artificial Intelligence and Machine Learning (AI/ML) subject matter expert for the Advanced Warfare Solutions branch
- Data scientist tasked with developing better understanding of operations with the goal improving mission effectiveness and efficiency.
- Advised leadership on emergent technologies (such as AI/ML) and methodologies.
- Utilized scientific inquiry in the independent development of mathematical models and computer programs to evaluate and predict the ability to support assigned projects, studies, or problems.

### 11/15 – 03/20, *Principal Software Engineer*

@BAESystemsInc

- Lead developer focused on quality and sustainability with experience configuring and using various continuous integration technologies
- Developed and implemented front-end architecture and workflow for multi-million dollar application
- Served as web technology expert, experienced mentor, and valuable trainer
- Leveraged Agile practices such as scrums, sprints, extreme programming, and retrospectives.

### 06/18 – 07/19, *Exercise Planner & Readiness Coordinator*

@CJTFHOA

- Conduct planning and lead cross-functional teams to execute large scale exercises
- Coordinate command readiness and ensure assessments are timely and accurate
- Develop and deliver command wide training on a weekly basis
- Knowledge Management subject matter expert

## 08/15 – 11/15, *Senior Software Developer*

@Leidos

- Performed agile development using popular front-end technologies such as: Ampersand.js, Reveal.js, and Cesium.js

## 07/14 – 08/15, *Senior Software Developer*

@BAESystemsInc

- Senior developer for multi-million dollar modern web application.
- Instrumental to implementing application infrastructure using MarionetteJS, HTML5, and Less.js

## 07/10 – 07/14, *Strategic Plans Officer / Security Manager*

USSTRATCOM Joint Functional Component Command, Global Strike

- Streamlined communication up chain of command and facilitated executive-level, biweekly planning meetings; improved planning process and enabled collaboration and senior leader strategic decision-making.
- Worked with and around multiple applications on a regular basis such as Global Strike Planning Aid (GSPA, now named ACME), Joint Targeting Toolbox (JTT), Digital Imagery Exploitation Engine (DIEE), SPA, and IMEA
- Qualified as a Collateral Damage Estimate (CDE) analyst
- Consulted with multiple groups in US Strategic Command; provided technical counsel on projects involving *network analysis* and *operations research*; improved products and furthered approval/development process.
- Modernized websites, maintained collaboration tools, created new tools for mission accomplishment, and maintained overall situational picture as division knowledge manager; improved productivity and efficiency.

## 05/06 – 07/10, *Submarine Warfare Officer*

USS Louisiana (SSBN 743)

- Led team to verify 100% of damage control gear prior to sub's major Operational Reactor Safeguard Exam; ensured zero deficiencies and sub's ability to combat any casualty, real or simulated, during patrols.
- Led efforts to improve tracking and control of top secret material; drafted and executed aggressive plan that successfully fixed sub's wayward security program; led to no security-related discrepancies during inspection.
- Selected out of 10 officers as sub's inaugural LAN officer; essential in writing operating instructions; maintained LAN with 100% compliance and no major discrepancies during inspections.

## PROFESSIONAL AWARDS

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- **2022** Navy Commendation Medal
- **2017** Joint Service Achievement Medal
- **2014** Joint Service Commendation Medal
- **2011** Joint Service Achievement Medal
- **2010** Navy and Marine Corps Achievement

## EDUCATION

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- **2021** Mini MBA, University of Nebraska at Omaha
- **2021** Strategic Leadership Fellow, USSTRATCOM (capstone paper)
- **2012** Master of Arts, Mathematics, University of Nebraska at Omaha
- **2006** Bachelor of Arts, Mathematics, University of San Diego
- **2006** Bachelor of Arts, Physics, University of San Diego

## CERTIFICATIONS

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- **2015** Certified Information Systems Security Professional (CISSP)
- **2015** Professional in Human Resources (PHR)

## PUBLICATIONS & CITATIONS

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- Small-World Properties of Facebook Group Networks
- Security and Privacy Management, Techniques, and Protocols (Advances in Information Security, Privacy, and Ethics) 1st Edition

## PRESENTATIONS

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- PowerShell is Awesome
- Web Apps Must be Sustainable — How to leverage common patterns to enable flexibility
- Wat? The Purpose and Promise of WebAssembly
- The Four Labyrinths of JavaScript
- Fun with Generator Functions
- Hooked on Hooks

I have more presentations on [GitHub](#)

## OTHER

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- Cleared for Top Secret information and granted access to Sensitive Compartmented Information based on a Single Scope Background Investigation.
- 2019 — Completed OSCP Penetration with Kali course. I did not pass the 24hr OSCP exam, but I learned a lot in the process.
- 2014 — Present Navy Selected Ready Reserve member (Commander, O-5)

You can read my Navy biography on [GitHub](#).

- 2012 – 2013 Tutored online with tutor.com in Calculus and Algebra
- 2011 – 2013 Tutored local high school students in Geometry and Trigonometry