# KNOWLEDGE

## 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](https://www.complex-systems.com/abstracts/v23_i03_a01/)

# SKILLS & EXPERIENCE

## 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](#publications-citations).
* As a developer, I have years of experience working with geospatial visualization technology. I am a [CesiumGS/cesium contributor](https://github.com/CesiumGS/cesium/blob/main/CONTRIBUTORS.md).

## 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](http://sustainable.surge.sh/).
* 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](https://github.com/jhwohlgemuth/tomo-cli). 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](https://github.com/jhwohlgemuth) for examples of my coding ability — like my PowerShell module, [Prelude](https://github.com/jhwohlgemuth/pwsh-prelude)

## Training & Mentorship

* As a principal engineer at BAE Systems, developed and delivered [numerous presentations on web technology](https://github.com/jhwohlgemuth?utf8=%E2%9C%93&tab=repositories&q=slides&type=source&language=)
* 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](https://revealjs.com/#/) and [Spectacle.js](https://formidable.com/open-source/spectacle/))

## 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

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

[*@ORNL*](https://twitter.com/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*](https://twitter.com/US_Stratcom)

* Contributor to the DoD [Artificial Intelligence Design Engineering for People and Technology (ADEPT)](https://community.apan.org/wg/adept-framework/) 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*](https://twitter.com/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*](https://twitter.com/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*](https://twitter.com/LeidosInc)

* 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*](https://twitter.com/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

* **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

* **2021** Mini MBA, University of Nebraska at Omaha
* **2021** Strategic Leadership Fellow, USSTRATCOM ([capstone paper](https://resume.jasonwohlgemuth.com/SFLP_capstone.pdf))
* **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

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

# PUBLICATIONS & CITATIONS

* [Small-World Properties of Facebook Group Networks](http://wpmedia.wolfram.com/uploads/sites/13/2018/02/23-3-1.pdf)
* [Security and Privacy Management, Techniques, and Protocols (Advances in Information Security, Privacy, and Ethics) 1st Edition](https://smile.amazon.com/gp/product/1522555838/ref%3Dppx_yo_dt_b_asin_title_o02_s00?ie=UTF8&psc=1)

# PRESENTATIONS

* [PowerShell is Awesome](https://powershell.surge.sh/)
* [Web Apps Must be Sustainable — How to leverage common patterns to enable flexibility](http://sustainable.surge.sh/)
* [Wat? The Purpose and Promise of WebAssembly](http://wat-brown-bag.surge.sh/)
* [The Four Labyrinths of JavaScript](http://www.jasonwohlgemuth.com/slides-javascript-labyrinths/#/title)
* [Fun with Generator Functions](https://generators.surge.sh/)
* [Hooked on Hooks](http://hooked-on-hooks.surge.sh/)

I have more presentations on [GitHub](https://github.com/?q=slides)

# OTHER

* 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](https://github.com/jhwohlgemuth/navy-biography).

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