

JASON HOWARD WOHLGEMUTH

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KNOWLEDGE

Programming

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

I used Python for my Masters thesis - published in the journal, Complex Systems

Tools, Libraries, and Frameworks

- React.js CesiumJS, Backbone.js, MarionetteJS, jQuery, RequireJS (*AMD*)
- Web Components (*#usetheplatform*), Lodash.js, Redux.js, RxJS
- Babel, Webpack, Rollup.js, Parcel.js, Browserify, snowpack
- code quality (PSScriptAnalyzer, Hadolint, Shellcheck, ESLint, flow, etc...)
- unit/integration/fuzz/acceptance testing (Pester, jest, AVA, mocha, jasmine, etc...)

Visit my GitHub account for examples - like my PowerShell module, Prelude

Database Technologies and DevOps

- (*Database Technologies*) MongoDB, redis, CouchDB, MySQL
- (*Continuous Integration*) Jenkins, Travis, Codeship
- (*Development and Deployment*) Git, nvm, npm, grunt, gulp, now, surge, heroku

I follow and track current trends and developments... it is one of my hobbies :)

Software

- Adobe XD, Adobe Illustrator (CS6), Adobe Photoshop (CS6)
- Docker, Vagrant, Packer, VMWare, VirtualBox, Linux, RHEL, WLS
- Almost any front-end IDE/editor (current favorite is VS Code)
- Atlassian JIRA, Stash (Bitbucket Server), Confluence

My favorite oh-my-zsh theme is "agnoster"

Security

- I know about MITRE CVEs and CWE (I even know that Microsoft is the CVE numbering authority for GitHub)
- I can use OpenSCAP to harden an OS installation
- I always use `npm audit` as a prestart task for Node.js servers
- I also lint my Dockerfiles
- I made an ESLint config mapped to MITRE CWEs

I completed the "Penetration Testing with Kali Linux" Course. Although I did not pass the 24 hour exam, I learned a lot and may one day try again...

SKILLS & EXPERIENCE

Mathematics / Operations Research / Network Science

- During my Masters 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 Masters 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.

Design / Development / Security

- 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 changelogs, integrating version updates, submitting security impact analyses, and training co-workers on modern trends and technologies.

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 evolutions, during maintenance and casualty situations, maximizing efficiency while maintaining a safe environment.

CAREER TIMELINE

03/20 - Present, *Operations Research Analyst*

@US_Stratcom

- 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*

@CJTFOA

- 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

- **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 (as USSTRATCOM Strategic Fellow)
- **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
- Security and Privacy Management, Techniques, and Protocols (Advances in Information Security, Privacy, and Ethics) 1st Edition

PRESENTATIONS

- 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

- Cleared for Top Secret information and granted access to Sensitive Compartmented Information based on a Single Scope Background Investigation.
- 2014 - Present Navy Selected Ready Reserve member (Commander, O-5)
You can read my “official” Navy biography on [GitHub](#).
- 2011 - 2013 Tutored local high school students in Geometry and Trigonometry
- 2012 - 2013 Tutored online with [tutor.com](#) in Calculus and Algebra