

# Alex Johnson

dajohnso@Caltech.edu (615) 970-8029 Pasadena, CA

## Summary

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Biochemist and trained naval aviation technician with a unique blend of military discipline, mechanical skill, and scientific research expertise, passionately aimed at advancing sustainability and natural resource conservation. Experienced in leading diverse teams through complex problem-solving scenarios, I am enthusiastic about applying a dynamic and energetic approach to environmental challenges. Armed with creativity and readiness to think outside the box, I am dedicated to making a significant impact in conservation efforts and community engagement.

## Core Skills & Expertise

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- **Environmental Compliance and HAZMAT Management:** Skilled in conducting environmental inspections and managing hazardous materials to prevent environmental contamination.
- **Mapping and Biological Expertise:** Proficient with advanced mapping technologies and has a strong background in General Biology.
- **Technical Proficiency:** Experienced in utilizing Microsoft Office and Adobe Suite for effective data management and analysis.
- **Career Development and Team Leadership:** Experienced in managing career progression and leading teams through extensive maintenance and training operations.
- **Community Engagement and Educational Outreach:** Effective in communicating complex environmental and scientific topics to diverse audiences, enhancing community engagement and understanding.
- **Compliance and Safety Auditing:** Skilled in performing safety inspections and ensuring compliance with environmental safety standards.
- **Leadership and Strategic Impact:** Proven leadership capabilities in high-stakes environments, consistently maintaining operational readiness and achieving strategic objectives.
- **Veteran Experience and Community Contributions:** Extensive experience in safety and risk management, deeply involved in diversity, equity, and inclusion initiatives, and committed to applying research and practical skills in environmental conservation.
- **Driving Proficiency:** Holds a California driver's license with the ability to obtain a Washington driver's license.

## Professional Experience

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Caltech (2021 - current)

Pasadena, CA

*Graduate Researcher*

- **Caltech DIVE (Diversification Initiative through Veteran Education):** Spearheaded initiative to enhance veteran involvement in advanced scientific research and education, promoting scientific education in a non-traditional academic population.
- **Collaborative Research with Imperial College London:** Engaged in a groundbreaking collaboration focused on synthetic biology and bioengineering, contributing to joint research projects and fostering international academic partnerships.
- **Development of Biosensors for Marine Environments:** Led the design and implementation of innovative biosensors designed to detect chemical changes in marine ecosystems.

- **Microfluidics and Lithography Techniques:** Mastered and applied advanced microfluidic and lithographic techniques to create precise and controlled biological environments for research, enhancing the accuracy and relevance of experimental outcomes.
- **Public Engagement and Science Communication:** Actively participated in public outreach and science communication efforts, presenting complex scientific research in accessible formats to diverse audiences, thereby enhancing public understanding and engagement.
- **Mentorship and Leadership:** Provided mentorship to undergraduate students and junior researchers, guiding them through complex scientific processes and fostering a collaborative and inclusive research environment.
- **Advanced Imaging and Data Analysis Techniques:** Utilized high-speed microscopy imaging using Nikon microscopes to capture dynamic molecular mechanisms, enhancing the understanding of cellular behaviors. Applied OpenCV for complex image analysis and Python for automation and data processing. Coordinated the management of large datasets with international collaborators, ensuring efficient data integration and analysis across multiple research groups.

## United States Navy (2016 – 2019)

### VAQ-139, NAS Whidbey Island — USS Theodore Roosevelt

*HAZMAT Program Supervisor — Emergency Reclamation Coordinator — Respirator Program Supervisor — Work Center Supervisor — Collateral Duty Inspector — Career Counselor*

- **Corrosion Control Supervisor:** Corrected 1,321 corrosion discrepancies, dedicating 2,163 man-hours to ensure six aircraft were fully mission-capable. Supported the command's ability to execute 3,051 sorties with a 100% combat sortie completion rate during Operations INHERENT RESOLVE/FREEDOM'S SENTINEL.
- **Maintenance Team Leader:** Led five technicians through 840 maintenance actions totaling 1,623 man-hours, contributing to 1,524 sorties and 2,475 mishap-free flight hours.
- **Command Career Counselor:** Managed career progression for 200 sailors, overseeing career-related correspondence and instructions.

## Education

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### California Institute of Technology (2021 – Present)

*Graduate Researcher – Bioengineering*

- **Caltech DIVE (Diversification Initiative through Veteran Education):** Spearheaded initiatives to enhance veteran involvement in advanced scientific research and education.
- **Collaboration with Imperial College London:** Participated in a transatlantic collaboration focused on synthetic biology and bioengineering.

### Western Washington University (2019 – 2021)

*B.S. in Biochemistry*

- Completed courses in enzymatic production of biofuels.
- Crystallized and structurally analyzed enzymes resulting in several publications.

## Certifications & Licenses

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- FAA Private Pilot License - Fixed Wing
- FAA Commercial Drone License
- HAZWOPER 40-hour
- California Driver License (formerly Washington)