

# ZACK NELSON

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[zacknelson.dev](https://zacknelson.dev) | [linkedin.com/in/nelsonzack](https://linkedin.com/in/nelsonzack) | [github.com/nelson-zack](https://github.com/nelson-zack)

Full-stack software engineer with contract and project experience building scalable web applications in React, FastAPI, and PostgreSQL. Published open-source tools on PyPI (1,000+ downloads). U.S. Marine veteran bringing disciplined execution, cloud deployment skills, and a track record of shipping production-ready software.

## TECHNICAL SKILLS

<b>Languages:</b>	Python, JavaScript, TypeScript, C++, SQL
<b>Frontend:</b>	React (Vite), Next.js, Tailwind CSS
<b>Backend:</b>	FastAPI, Node.js, REST APIs, GraphQL
<b>Databases:</b>	PostgreSQL, SQLite
<b>Tools/Platforms:</b>	Docker, Git/GitHub, CI/CD (Render, Vercel), AWS (certification in progress)
<b>Machine Learning:</b>	YOLOv8, PyTorch
<b>Security Clearance:</b>	Secret Security Clearance (Inactive, U.S. DoD)

## PROJECTS

<b>Job Radar</b>	<b>Next.js, FastAPI, PostgreSQL</b>   <a href="#">Demo</a>   <a href="#">GitHub</a>
<ul style="list-style-type: none"><li>Built full-stack job aggregator crawling Greenhouse ATS and curated GitHub feeds across 100+ companies; enforced entry-level filters and normalization rules</li><li>Implemented FastAPI + PostgreSQL backend with API integration, ingestion metrics, CSV export, and admin endpoints; automated nightly ingestion and cloud-based CI/CD pipelines for scalable, reliable deployments</li><li>Developed Next.js + Tailwind frontend with advanced filters, analytics dashboards, pagination, provider visibility toggles, and robust error handling</li></ul>	
<b>Job Log</b>	<b>React, FastAPI, PostgreSQL</b>   <a href="#">Demo</a>   <a href="#">GitHub</a>
<ul style="list-style-type: none"><li>Deployed job tracker managing 200+ applications with tagging, analytics, CSV export, and progress dashboards</li><li>Designed and tested REST APIs with FastAPI + PostgreSQL (Pytest unit tests); deployed to cloud platforms (Render, Vercel) using CI/CD pipelines, including Chart.js dashboards for analytics</li><li>Implemented API key system to restrict write operations while allowing public read-only access, enabling secure collaboration</li></ul>	
<b>Commit Companion</b>	<b>Python</b>   <a href="#">PyPI</a>   <a href="#">GitHub</a>
<ul style="list-style-type: none"><li>Published Python CLI on PyPI (1,000+ downloads) that integrates with Git to auto-generate commit messages, boosting developer consistency</li><li>Packaged with Flit and Git hooks, applying modern Python packaging and seamless Git integration</li></ul>	

## EXPERIENCE

<b>Software Engineer (Contract)</b>	Jan 2025 – May 2025   <a href="#">GitHub</a>
<i>Cascade Stream Solutions</i>	<i>Santa Rosa, CA</i>
<ul style="list-style-type: none"><li>Collaborated with 3 engineers and client stakeholders to deliver YOLOv8 segmentation pipeline for hydrological modeling across 18k+ drone images</li><li>Trained and tuned YOLOv8 models with accuracy gains over baseline; developed augmentation and cross-validation workflows to improve generalization</li><li>Automated hydrological data extraction, reducing manual labeling needs and lowering reliance on costly geospatial platforms</li></ul>	
<b>Math Tutor</b>	2023 – 2024
<i>Private Tutoring</i>	<i>Santa Rosa, CA</i>
<ul style="list-style-type: none"><li>Tutored 10+ students in algebra and calculus, delivering 100+ hours of personalized instruction and strengthening communication skills</li></ul>	
<b>Military Police</b>	2013 – 2018
<i>U.S. Marine Corps</i>	<i>Okinawa, Japan &amp; South Carolina</i>
<ul style="list-style-type: none"><li>Led and mentored 70 Marines with zero mission failures in high-pressure environments</li><li>Managed systems safeguarding \$4M+ in assets with 100% accountability through disciplined processes and compliance</li></ul>	

## EDUCATION

<b>B.S. in Computer Science, Magna Cum Laude</b>	GPA: 3.78   Major GPA: 3.96
<i>Sonoma State University, May 2025</i>	<i>Rohnert Park, CA</i>