

JERRY MACK

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GitHub: <https://github.com/EOSandCHILL>

Marine Corps Veteran, with 10 years of experience in the technology industry, civilian and federal, with 2.5 years of software engineering experience professionally, academically, and personally. I am currently a Software Engineer, with a Public Trust security clearance, developing a data collection and reporting system for the National Science Foundation. My mission is to leverage my strong technical skills to architect and develop scalable software solutions that serve the public by making access to vital resources easier.

PORTFOLIO

Software Engineering Portfolio | <https://jerry-mack-swe-portfolio.vercel.app/>

EXPERIENCE

JAN 2023 – PRESENT

SOFTWARE ENGINEER, CREATIVE BUSINESS SOLUTIONS / BOWIE, MD

- Currently developing and maintaining a data collection and reporting software system for The National Science Foundation using Typescript, Vue.JS, JSON, Spring Boot (Java), Python, PostgreSQL, RESTful API services, Liquibase (CI/CD), Docker, AWS S3, Bitbucket (Version Control), Figma, and Jira.
- Consistently accelerating the software development process by 20% to 50% through rapid prototyping, combining JavaScript's vue.js framework on the front-end and Java's spring boot framework for microservice-based development on the backend, enabling efficient project progression.
- Utilize prompt engineering daily to increase productivity as a software engineer by more than 25% with generative AI tools such as Chat-GPT and GitHub copilot.
- Contribute to writing and maintaining documentation for the client and team members by utilizing Confluence wiki entries to create a more efficient and enjoyable development experience.
- Proficient in leveraging PostgreSQL and jOOQ to craft efficient and robust relational database queries, optimizing data retrieval and manipulation. Also skilled in implementing structured database changes and with Liquibase, ensuring seamless and controlled database migrations.
- Design and employ JUnit tests in conjunction with Spring Boot MVC controllers to create a wide variety of tests that enhance the reliability and robustness of the software.
- Utilize Spring Boot Security to implement authentication, authorization, and protection against common web application attacks.
- Utilize SonarLint to enhance debugging and troubleshooting processes on both the front-end and back-end, ensuring code quality and robustness.

OCT 2022 – DEC 2022

SOFTWARE ENGINEER, LAND INTELLIGENCE / COLUMBIA, SC

- Developed software utilizing React, Node.JS, MySQL, and Stripe, that allows investors to apply for debt on our software when investing in land. This software solution allowed the company to gain a strategic financial partnership and generate 5% of revenue from the interest of every approved loan application.
- Reviewed, tested, and deployed a major software integration to production, that provided our customers with more accurate and detailed real estate investment data. This high-quality data allowed over 80% of our users to find and invest in land that fit their specific land development needs.
- Led and managed a critical DevOps project to completion, using docker, git, and GitHub, which organized and optimized company repositories, branches, images, and containers. The completion of this critical

project increased the quality of life for onboarding developers and helped scale parallel software development.

SEPT 2021 – SEPT 2022

BIOMEDICAL TECH, LEXINGTON MEDICAL CENTER / LEXINGTON, SC

- Analyzed, corrected, and maintained operating systems, computer systems, and medical equipment utilizing flow charts, logical thinking, and complex problem-solving solutions, saving the hospital a minimum of \$1,500 weekly.
- Utilized and maintained hospital networks, alongside the IT department daily, to ensure 100% integrity, authorization, and confidentiality of sensitive patient data, using medical software.

JAN 2019 – JUNE 2019

SERVICE ENGINEER, L3 HARRIS TECHNOLOGIES / HONOLULU, HI

- Provided tech support to regional customers and TSA by installing and updating software using Linux, troubleshooting operating systems and networks, reporting software bugs, and maintaining X-Ray and CT-based airport security systems saving the company well over \$250K in repairs costs.
- Worked with customers to identify software and mechanical problems and gave customers solutions to issues over the phone and on-site saving the company well over \$500K.

DEC 2012 – DEC 2017

SR. AVIONICS TECH, US MARINE CORPS / CAMP PENDLETON, CA

- Repaired and maintained various communication, navigation, countermeasure, night vision, and software systems using FAA manuals to ensure the safety of thousands of US Marines during flight, while also being accountable for \$20M worth of aviation equipment.
- Trained and mentored 42 Marines on electronic theory, complex aircraft systems, blueprints, schematics, control flow diagrams, analog systems, digital systems, databases, and manuals to complete complex problems on a day-to-day basis.
- Decreased my work center's troubleshooting man-hours by 20% using advanced flow charts, ensuring the readiness of 57 maintenance test sets, saving my unit over \$10M in vital resources.

EDUCATION

MAY 2022 – PRESENT

B.S. IN SOFTWARE DEVELOPMENT, WESTERN GOVERNORS UNIVERSITY

DEC 2016 – OCT 2018

A.S. IN AERONAUTICAL SCIENCE, EMBRY RIDDLE AERONAUTICAL UNIVERSITY

SKILLS

- Frontend: Vue.JS, Typescript, JSON
- Backend: Spring Boot, Python, PostgreSQL, JSON
- DevOps: AWS, Jenkins, Docker, Git, Linux
- RESTful API Services, Postman API Platform
- Customer-centric development mindset
- Prompt Engineering with Generative AI tools
- High level of Communication with team members
- AWS Cloud Practitioner Certified
- Communicating with non-technical stakeholders
- Public Trust Security Clearance