

JOHN MCCARTHY

Product Manager | Software Engineer | TS/SCI Clearance

 jemccarthy13@gmail.com

 <https://www.linkedin.com/in/jem3973>

 <http://john.parrotsour.com>

SUMMARY

Achievement-oriented professional with a solid background in overseeing system architecture, defining goals, and managing project progress with local and remote teams. Organized and systematic team player, military leader, and command and control domain expert with development experience in Agile (Scrum) environments.

EXPERIENCE

Product Owner, Scrum Master

Hypergiant Galactic Systems (Accelint), JERIC20

 01/2024 – Present  Remote

JERIC20 is a command and control map-based UI, fusing multiple data feeds into a common operational display. As a Product Owner, I prioritized development activities to meet national defense requirements and deliver value to end users.

- Orchestrated efforts of an 8-person development team to deliver 114 features on-time for a \$42 million defense contract through a sprint-based delivery process.
- Integrated 9 data streams into a user-driven interface, coordinating with designers to create an intuitive user experience while collaborating with peers to align new designs and architecture with strategic goals.
- Provided 17 actionable recommendations to form the foundation of the HyperGiant DoD SkillBridge program and inform executive leadership of the opportunities the program provides, resulting in the creation of a strategic pipeline for talent acquisition.
- Created a business development product primer highlighting 32 of the most capable features of the company's multi-domain geospatial display framework used in the marketing and sales for Accelint-level initiatives.

Supervisor / Instructor Air Battle Manager

United States Air Force



 05/2016 – Present  Oklahoma City & Germany

Functioned as a supervisor for 34 Airmen, acted as a command and control expert on the E-3 Airborne Warning and Control System, and built Air Force web applications.

- Managed 16 programs for 189 personnel including performance evaluations, recognition, and promotion nomination
- Ran 2 simulator certification tests for the E-3A and validated 326 software requirements against NATO Allied Headquarters evaluation criteria
- Led international teams of 4-30 people in high-stress environments, directing 112 strategic surveillance and reconnaissance missions.
- Instructed 212 students on radar and signal theory, electronic signals analysis, 3D battlespace management, and air operations

Software Engineer







BAE Systems

 05/2011 – 05/2016  Nashua, NH

BAE Systems develops operational flight software, electronic support measures, and communications technology for the Dept of Defense. I worked on the Compass Call program as well as the real-time emitter identification and suppression program.

- Built an automated testing framework for a Cesium map web application utilizing the Selenium toolkit, used by 5 program teams
- Designed common messaging utility interface definitions for real-time embedded systems emitter identification and detection
- Identified and patched critical software vulnerabilities detected with static analysis and Jenkins continuous integration/deployment

ACHIEVEMENTS

-  Professional Scrum Product Owner
-  Certified Agile Scrum Master
-  AF District of Washington nominee – DoD CIO Award for Innovation
-  AF District of Washington nominee; AF Alison Award for Innovation
-  2022 Distinguished Graduate, Squadron Officer School
-  2022 Air Force Air Battle Manager of the Year nominee

SKILLS


Typescript	React	CSS/HTML	
MapBox	Java	Python	
Selenium	Sonarqube	Docker	
SQL/DBMS	GraphQL	Grafana	
Agile	Jira	Confluence	CI/CD
Gitlab	Jenkins	Sprint Planning	
Scrum	SAFe	Product Management	

Product Vision Complex Problem-Solving

EDUCATION

Master of Science: Management

Troy University

 03/2017 – 12/2018

Bachelor of Science: Computer Science

Rochester Institute of Technology

 03/2017 – 12/2018

JOHN MCCARTHY

Product Manager | Software Engineer | TS/SCI Clearance

 jemccarthy13@gmail.com

 <https://www.linkedin.com/in/jem3973>

 <http://john.parrotsour.com>

PROJECTS

JERIC20 – Advanced Battle Management Systems

 01/2020 – Present  United States Air Force

Implemented designs and frameworks for a common operational picture map display single page web application. Integrated four datasets for visualization using MapBox, React, and Next. Led 16-person geographically separated team discussions and code review for over 18,000 lines of code changes.

Eliminated 138 critical and major Sonarqube static analysis findings and increased test coverage to 90%, facilitating a Certificate to Field / Authority to Operate (CTF / ATO), and enabled four user feedback and live demonstration sessions.

ParrotSour – Battle Management Training Software Suite

 05/2020 – Present  United States Air Force

Randomly generates over 15 categories of enemy aircraft formations for Air Battle Managers to practice radio communication and simulates legacy system interaction for unclassified, globally accessible training on the Air Land Sea Application Center standards.

As the sole Developer and Product Owner, I built ParrotSour using React TypeScript, leveraging npm packages, adhering to linting patterns, and employing modern web design paradigms. The application creates and displays aircraft, presenting users with a system agnostic training environment. It incorporates sophisticated layered algorithms to generate correct answer communication statements for comparison with user-produced responses. The program introduces simulated movement, assigning each aircraft an intent to enhance the overall intelligence of the simulation.

Parrotsour.com is used by 3,200 controllers from 19 Allied nations to train Battle Managers in Allied tactics, techniques, and procedures, with a 99% service availability.

Airspace Deconfliction Tool

 01/2017 – 08/2018  United States Air Force

Parses Air Tasking Order aircraft to provide asset information, accepts Airspace Control Measures definitions to interpret airspace allocation, and tracks asset 3D assigned airspace and altitudes.

I developed algorithms to calculate, detect, and recommend fixes to any calculated safety of flight issues to ensure assets are appropriately separated and reduce risk of fratricide. It has been operational on the E-3 for over 7,000 combat hours for 22,000 coalition assets in a 1.2 million square mile operational area.

Selenium WebDriver Testing Framework

 03/2013 – 05/2016  BAE Systems

Designed and implemented a user interface testing framework using the Selenium library. This framework wraps the Selenium library in a custom testing framework that allows other developers on the team to rapidly generate tests to meet integration testing requirements.

Complex user interactions are programmatically conducted to ensure application and supporting backend services respond correctly. By maintaining a Jenkins CI/CD pipeline, I triaged, assessed, and addressed static analysis and runtime defects using Coverity.