

MARC LABELLE



Self-motivated and highly adaptable problem solver with a Master of Science in Physics and 10+ years of experience in military safety critical system software development, full-stack web development, test automation, and RF systems engineering. Skilled at analyzing problems and finding solutions in a variety of languages. Proven ability to work in a result-oriented team and meet demanding time goals. Strong written communication skills with experience developing technical proposals and documents.

SKILLS



EXPERIENCE

R&D SOFTWARE ENGINEER

November 2019 - Present

ACV AUCTIONS

Responsible for creating ground-up solutions to complex problems in an independent capacity.

- Designed and developed identity service API to provide user authentication (JWT) and extensible user permissions for 3rd parties needing access to internal services
- Created, updated, and managed Kubernetes helm charts to manage and release reproducible builds
- Created API endpoints to integrate with Salesforce
- Developed computer vision algorithms for iOS and embedded devices that automatically crops undercarriage images using OpenCV
- Doubled code coverage on two projects within 1 month of starting
- Ran and performed code reviews for backend systems and iOS
- Provided support solutions to the field and mentored UB students

LEAD SCIENTIST

October 2017 - November 2019

NSWC INDIAN HEAD EOD TECHNOLOGY DIVISION

Responsible for several programs including the design and management of full-stack applications, static and dynamic binary code analysis of embedded devices, developing and modeling the explosive effects of explosive ordnance disposal (EOD) devices.

- Lead developer, scrum master and full-stack developer building applications for ingesting, processing, and sharing community reports, analyzing data for better workflow, and a workflow management ticketing system utilizing the Python Django framework and Microsoft SQL
- Develop features as an Agile team by writing user stories, creating design specifications, code reviews, and QA testing before integration
- Create customized monthly metrics using C3 for data visualizations
- Maintain local lab servers for development and closed network deployment using Apache, Postgres, BIND, etc.
- Implement and manage JIRA, BitBucket, Bamboo, and SonarQube to improve development and CI/CD workflow
- Code review using static and dynamic binary code analysis of safety-critical embedded devices to find bugs, vulnerabilities, and verify program/data flow.
- Computational modeling involving the explosive effects of EOD (explosive ordnance disposal) and Counter-IED methods/devices to develop, test, and verify their effectiveness
- Identify and develop custom Counter-IED solutions for PIC, Atmel, and Arduino embedded devices used by EOD technicians
- Develop various workflow automation applications to reduce workflow turn-around times by up to 50%
- Develop and implement workflow plan using JIRA and Bitbucket to track issues, manage workflow, and provide monthly status reports to the sponsor.

SCIENTIST

July 2009 - September 2017

NSWC INDIAN HEAD EOD TECHNOLOGY DIVISION

Developed automated test sets for weapons systems with LabVIEW as well as embedded software and GUIs for data analysis.

- Lead designer and developer of automated test systems for counter radio-controlled improvised explosive device (RCIED) electronic warfare (CREW) system
 - Tested RF signals, serial communications, system timings, electrical properties, etc.
 - Used common protocols including TCP, UDP, and XML to transfer and store parameters
- Performed testing and acceptance reviews of contractor software deliverables that included hundreds of unique software products, software design documents, and interface control documents
- Worked with contracts and collaborated with external vendors to expand and develop concepts and designs
- Developed optimized software updates to an embedded data acquisition logger for recording various real-time test data simultaneously
- Updated data analysis GUI from Visual C++ to C# for a modern, modular codebase allowing future expandability for next generation architectures

EDUCATION

NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY

August 2007 - May 2009

MASTERS OF PHYSICS

Astrophysics Concentration

- Research Assistant
- Astronomy club

STATE UNIVERSITY OF NEW YORK AT FREDONIA

August 2003 - May 2007

BACHELORS OF PHYSICS

Experimental Concentration

- Engineering & Physics Society President
- Society of Physics Students Vice President
- Induction into Sigma Pi Sigma, National Physics Honor Society

INTERESTS

I am always tinkering and building. At home, I have a homelab server where I deploy various docker containers for home automation, web apps, storage, security, etc.

It seems like lately, all I've been doing is web development, but I am also into playing, mixing, and mastering [music](#). I enjoy biking, camping, kayaking, and casual gaming.

I'm also a guitar gear head. I love building and modifying guitar pedals, pickups, and guitars seeking that perfect but ever so elusive guitar tone.

AWARDS & CERTIFICATIONS

- Atlassian Certified in Jira Project Administration (AC-JPA) - 2019
- NSWCIHEODTD Special Act Award - 2019
- Certified LabVIEW Associate Developer - 2018
- Naval Sea Systems Command Engineer of the Year Team Award - 2016