MICHAEL BRAHA

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SKILLS

- **Languages:** Python, PowerShell, Bash, JavaScript, Go, C, Solidity, Markup languages, Matlab
- **Tools and Frameworks**: Ansible, Packer, Vagrant, VirtualBox, QEMU/KVM, K8s, VMWare, Artifactory, GitLab, Docker/Podman, Git, Terraform, Node.js, React, Flask, Tkinter, unittest, REST API, MongoDB, Web3, Truffle, Ethereum, Ganache, IPFS

CERTIFICATIONS

AWS Certified Cloud Practitioner

EXPERIENCE

DevOps Engineer, *General Atomics Aeronautical Systems, Inc.* **July 2020 – present**

Design processes, tools, and methodologies using robust configuration management and automation to address inefficiencies in the software development lifecycle.

- Proselytize through documentation and hands-on training to shift company culture towards modern DevOps principles.
- Implemented a toolchain to design, create, and distribute reusable Virtual Machines (VMs), thereby reducing dependency on host machine configuration and unifying developer environments.
- Created processes and tooling for integrating Artifactory as the main binary repository, replacing an antiquated system of file shares.
- Architected processes for developer adoption of GitLab and the department's use of Continuous Integration pipelines. Stood up end-to-end Windows image pipelines, with automated patching and hardening, to optimize the software field loading procedure for ground stations.

Autopilot Software Engineer, *General Atomics Aeronautical Systems, Inc.* **March 2018 – July 2020**

Developed autopilot software for military UAVs from requirements to field testing. Wrote real-time aircraft flight control software in C.

- Thoroughly supported the SDLC: requirement analysis and creation, code design, peer reviews, test generation, test execution, and test reporting.
- Generated test documents and conducted Integration Testing in Hardware in the Loop (HIL) labs.
- Managed Jenkins workload for regression testing. Created jobs, debugged issues, and added configuration management to make creating and executing future jobs easier.
- Implemented a revised architecture for an in-house test framework that provided better tracing between tests and requirements, greater reusability of requirement-based tests written during CR development, and promoted composition of more robust unit tests.

Avionics Technical Writer, *General Atomics Aeronautical Systems, Inc.* **May 2016 – May 2018**

Responsible for the development of technical changes to the MQ-9 Organizational Maintenance manual by employing subject matter expertise on MQ-9 Avionics repair and Fault Isolation troubleshooting procedures.

PROJECTS

Home Inventory

Full-stack web application that allows users to store information regarding rooms, items, and their monetary value. A Flask server hosts a REST API, a React client interacts with it, and data is persisted with MongoDB. A separate Terraform project fully deploys the application to AWS, including CI/CD to allow live developer editing of the project.

ERC-20

A native implementation of ERC-20 by following Ethereum Improvement Proposal (EIP) 20. A TDD-built React web client was created to interact with the contract and prove it works.

MicroblogPy

A social media-like full-stack web application built using Python Flask, Bootstrap, and SQLAlchemy. Supports live language translations via Azure API, site wide search via Elasticsearch, background asking scheduling via Redis, a REST API, and robust email support.

EDUCATION

University of Florida **2010 – 2015**

- B.S. Aerospace Engineering
- B.S. Mechanical Engineering
- Minor in Business Administration