# Malcolm A. Jefferson Software Developer

#### **WORK EXPERIENCE**

# Brockwell Technologies, Inc

Team Lead / Software Engineer

Issaquah, WA | Sep 2020 - current

- Designed and developed MQTT implementation of Databots to improve data streaming speed by 18%
- Designed and developed MQTT implementation of MeteorService API to reduce memory usage by 24%
- Designed and developed MQTT and Protobuf implementation of PrintClient user interface
- Designed and developed MQTT implementation of DatabotsService microservice to increase data streaming speed by 3%
- Utilized GoogleTest to create a suite of end-to-end tests for MeteorService API
- Led UX redesign for InkBotsExplorer interface which reduced customer complaints by 42%
- Experience using tools such as C++, MQTT, Protobuf, C#, Python, Docker, MongoDB, ZMQ, and FTP

## Cyber Product Development Lead

Aug 2019 - current

- Designed and developed Cyber Range-In-The-Box full stack web application to support cyber training operations
- Designed and implemented user interface, authentication, request handling, input validation, DB schema, DB queries and virtual machine orchestration
- Developed timelines, requirement specification, requirement verification, and all other ISO9001:2015 requirements to increase development speed by 50%
- Led the company implementation and adoption of JIRA which reduced the time it took to define and manage tickets by an average of 2 days
- Utilized ESXi, vSphere, VMware, ELKstack, Python, Django, HTML, CSS, Javascript pyVmomi, and MySQL to develop Cyber Range-In-The-Box full stack web application

# **Dynetics**

SOC Analyst Trainee

Dec 2015 - Aug 2019

- Implemented internal Outlook Add-On to allow users to report phishing emails which reduced phishing breaches by 7%
- Implemented Whistler Client registry retrieval to forward system data to log server which improved incident response capabilities
- Utilized Azure to develop large scale, cloud-based, sandbox environment, Loki, to conduct real time cyber training exercises and improve cyber capabilities
- Implemented internal thread injection detection and logging tool which improved incident response capabilities
- Designed and implemented full stack web application, Honeydoc-Tracker which was used to conduct annual Cyber Awareness Training
- Utilized Python to create internal suite of tools for decoding/encoding, memory analysis, macro detection, and phishing
- Utilized tools such as Python, Flask, Django, ELKStack(Elasticsearch, Logstash, Kibana), Virtualbox, VMWare, Kali Linux, Ubuntu, CentOS, Azure, PyVmomi

#### PROJECTS

# **Restaurant Review Board**

- Built a full-stack web app to allow users to share their opinions and get directions for various restaurants
- Utilized MongoDB Atlas and Node.js to implement REST API for CRUD operations
- Used: Nodejs, Expressjs, Reactjs, HTML, CSS, Javascript, and MongoDB

## SKILLS

- Python
- C++
- C#
- HTML
- CSS
- Javascript
- Typescript
- Nodejs
- Expressjs
- React
- Angular
- AngularJS
- MySQL
- MongoDB
- MQTT
- Protobuf
- Object Oriented Programming
- Data Structures and Algorithms
- Ubuntu
- CentOS
- Kali Linux
- Virtualbox
- VMWare
- VMWare ESXi server

### EDUCATION

B.S.

# **Electrical Engineering**

University of Alabama in Huntsville 2015 - 2020 Huntsville, Alabama