Ian Laffey

Software Engineer

Callsign: KE0OZV
Website: ilaffey.com
Github: ilaffey2
IanLaffey@gmail.com

SKILLS

Concurrent Programming, Compiler Design, Game Development, Relational Databases, Algorithm Design, Model Driven Engineering, Code Generation, Object Oriented Programming, Functional Programming, Event Driven Programming, REST, CRUD
Java, C, Python, MIPS, OCaml, Bash, SQL, PostGreSQL, MatLab, Kubernetes, Docker, Conan, Git, Jenkins, Groovy, Maven, JavaScript

EXPERIENCE

Opal-RT Technologies - Software Intern - Continuous Integration Team
Python, Git, Java, Conan, MatLab, RT-Lab, Jenkins, Groovy, Agile
January 2022 - May 2022

- Refactored Jenkins CI tests for ePHASORSim product, including: adding Core test-checking to improve efficiency, parallelizing/decoupling test execution, custom logging features
- Created an in-house Jenkins plugin from scratch to allow safe downstream launching on Jenkins nodes
- Helped to design and manage Python CI and unit tests for Jenkins pipelines for the RT-Lab Product
- Worked on large Conan based build-systems, creating and modifying scripts for use by other developers.
- Created test suite for internal Conan wrapper
- Simulated remote targets with VM and Docker containers
- Helped to train new hires in an international, multilingual team

McGill Robotics, Montreal, QC - AUV Software
September 2019 - April 2020

- Worked in the software devision of McGill's Autonomous Underwater Vehicle (AUV) using the Robotics Operating System (ROS), writing code in Python, C++, and scripting in Bash focused on computer vision.
- Collaborated with Undergraduate, Masters, and PhD students to integrate software with the electrical and mechanical components of the AUV, gaining skills in working with version control and a large legacy codebase.

BECS Technology, St. Louis, MO - Engineering Intern
April 2018 - May 2018

- Developed hard skills such as circuit soldering and logic board assembly while shadowing production teams.
- Absorbed strategic knowledge while shadowing engineering teams, observing tool selection and planning prior to production of microcontrollers.
- Performed network diagnostics, general maintenance, and bug repair with software and IT teams.

PROJECTS

safe-downstream-launcher - Custom Jenkins plugin for Opal-RT
2022

Custom Java plugin written while working on CI pipelines with Jenkins allowing for downstream plugins to be safely launched, avoiding race conditions in a CPS (Pipeline Script) context.

SuttonCDN (suttoncloud.app**)** - Project with Colleague at McGill
2021

Aims to allow distributed computation of Docker containers for more efficient, affordable cloud computations

COMP 520 - Compiler Design
Spring 2021

Created a C Compiler from scratch. This included lexer, parser, AST generator, semantic analyzer, and regalloc

COMP 361 D1/D2 - Software Engineering Design Project
Fall 2019-Spring 2020

Worked as a group to create an online multiplayer rendition of the board game Legends of Andor

EDUCATION

McGill University, Montreal
Bachelors of Science
Software Engineering, Economics
September 2018 - May 2022
CUM GPA: 3.33