Christian Loera

(651) 675-6993 • christian.loera@tuta.io

Summary

Computer Engineer with experience and education in design, development, and testing. Proficient in C, Go, Python, and Java in backgrounds of RESTful API's and embedded systems, as well as using Linux, PostgresSQL, and Docker.

Experience

Foxconn Industrial Internet

BMC Firmware Engineer • Dec, 2019 — Present

- Work in low-level architecture of the Linux Kernel and Devicetree to create BMC firmware.
- Work on teaching Bitbake for development and debugging for Yocto.
- Add Redfish support to acquire and update system information:
    - Sensor information,
    - BMC and BIOS version,
    - User system control.
- Create tools to improve the build of a BMC firmware.
- Write documents explaining the architecture and development process of building and using the BMC firmware.

Astronautics Corporation of America

Software Engineer I • June, 2018 — Dec, 2019

- Ensured that there was enough memory space for log files by deleting exported log files once memory space is limited.
- Improved on the security and integrity of the system:
    - Ensured that executable files weren't changed for a different file.
    - Ensured that file permissions weren't changed.
    - Ensured that no extra files were added to any directory or renamed.
- Strengthened communication between an aircraft and ground station by using RSA authentication or X.509 Certificates to connect and send data to each other.
- Wrote software requirements that explained what each part of the software shall do at any given time.

Integer Holding Corporation

Control Engineer Intern • May, 2016 — Jan, 2017

- Worked on a robotic arm to implement human motion:
    - Designed the robotic arm to spray pacemakers with a protective coating that is safe for the pacemaker and the human body.
    - Designed the user interface to be bilingual for English and Spanish.
    - Robotic arm operated through a user configuration for each pacemaker measurements; where each configuration was saved and reused.
- Improved existing pacemaker threading machines by adding more motors to thread the wiring together.

Education

University of Wisconsin - Stout

Bachelor of Science in Computer Engineering • 2014 — 2018

Treasurer of Institute of Electrical and Electronics Engineers (IEEE) • 2016 — 2018

Projects

Crypto HODL - Python

• March 2021

- Displays my portfolio of each cryptocurrency with price/loss, as well as my order history that I have made for each cryptocurrency.
- Uses API's to get orders, coin information, and news then stores data into cache.
- Uses cache to read and write data from Raspberry Pi rather than continuously calling API's for the data.

Vault Depot - Go

• November 2020

- Stores multiple encrypted passwords, username, and email into a database for each website.
- Command line interface to add, access, and edit information.
- Database is able to export into a CSV file, and able to import a CSV across different machines.
- Multiple users can access the password manager by creating their account to store individual passwords for each website.

Ledger - Go

• July 2020

- Designed a ledger that can be used for general use.
- Could be used as a command line tool and as a package.
- Searches for data in the ledger notebook; date, location of transaction, and details.

Social Links

- **Github**: https://github.com/loerac/
- **LinkedIn**: https://www.linkedin.com/in/christian-loera