Julian Carvalho

| julian.carvalho@gmail.com | (262) 402-0584 | | Linkedin: www.linkedin.com/in/jc14623 | Project Page: https://rb.gy/x3ukk7

SUMMARY

B.S. Computer Engineering technocrat with hands-on, team-based project management experience. Knowledge in embedded and control system coding projects, VHDL, C, Arm Assembly, Java, JavaFX, Signals and systems, SoC Design, Computer Architecture, and MATLAB. As an Eagle Scout, devoting 15-20 hours per week to Extracurricular community Involvement. Extensive Internship, Work, and Collegiate experience and knowledge on engineering topics.

EDUCATION

B.S. Computer Engineering | Milwaukee School of Engineering | GPA: 3.55 | Expected December 2025 |

- Minoring in **Electrical Engineering -> Concentration: Control Systems + Design**
- **GRADE: SENIOR**
- Courses Taking: Semiconductor Physics [PHY 3700], Macroeconomics [BUS 2222], Senior Design [CPE 4902], Independent Study Project [ELE 4999].

PROJECT EXPERIENCE

GE Healthcare Services Upgrade

Objective: Update GE Healthcare's MRI Services to the latest versions of Software

▪ Through this internship/co-op, Updated the MRI Services of GE Healthcare's systems. Updated ***JAVA*** and ***SPRINGBOOT*** to accomplish these tasks, as well as ran the services through the ***JENKINS PIPELINE*** to ensure reliability. Worked with Senior Engineers to Develop Software for execution on a GE Showsystem/Target. Used and Updated the GE Healthcare Framework to cleanly build on the ***GRADLE*** platform.

Embedded Systems Project: Maze Game LED Matrix 8x8

Objective: Create a free-form project based on project requirements in Embedded C.

▪ Through this game I created, the user starts at the bottom corner of an 8x8 LED matrix, using ***EMBEDDED C*** and APIs created, and maneuvers themselves to the other corner of the matrix.

▪ Created APIs between components using an ***STM32F411*** Embedded Microcontroller Architecture.

Control Systems Design Project: Cruise Control

Project Objective: Develop a free-form project, building off of closed-loop controller design for a vehicle.

▪ Developed the fundamental basic blocks based on a PID Controller that would be used to control the system mathematically for a sample Toyota Corolla. Derived the Equations and Main Logic for the system.

▪ Used ***MATLAB MULTISIM*** and ***ARDUINO MEGA*** to simulate and implement the cruise control logic.

▪ This project effectively spun a motor at a constant velocity when the button was pressed, and then to a random RPM once the button was not pressed, "simulating" cruise control.

TECHNICAL SKILLS

▪ C / Java / Javascript	▪ Intel FPGA / Embedded Systems	▪ Operating Systems
▪ VHDL / Python / API Dev	▪ SoC Design + Integration	▪ MS Office, Excel
▪ ARM Assembly / Intel Quartus	▪ HTML / IROM Design	▪ Electrical Circuits + Analysis

PROFESSIONAL HISTORY

MRI Software Engineer Intern | GE Healthcare Inc. | September 2024 - September 2025 |
Team Client Engineer | TJ Hale Manufacturing Inc. | May 2022 – August 2024 |
Project Manager | LAUNCH | August 2020 - June 2021 |