# Logan Bryant

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**Objective:** To obtain a full-time position in the field of embedded systems, FPGA engineering, software or front-end development

**Education:**

**Bachelor of Science in Computer Engineering** — May 2023
Rose-Hulman Institute of Technology | Terre Haute, IN | Minor in Computer Science — GPA: 3.46

**Related courses:** IoT, Advanced Dig Design & Verilog, Computer Networks, Communication Networks, Computer Architecture, Embedded Systems, Data Structures and Algorithms, Intro Web Dev, Continuous-Time Signals, Linear Control Systems, Practical Security, Cybercrime and Dig Forensics

**Skills:** C, C++, Python, Verilog, Assembly, Arduino, MATLAB, Code Composer Studio, PCB design, Cadence, Soldering, Java, HTML, JavaScript, CSS, NodeJS, NPM, Firebase, Linux Shell\Bash

**Experience:**

**Collins-Aerospace** | Software Engineering Intern | Cedar Rapids, IA — May– August 2021, May - November 2022
- Experienced working in Agile environment, peer review, and subversion control
- Utilized Jinja 2 template generator to produce reusable code converting C++ into Java replication
- Created SystemC simulation modules to communicate using publish/subscribe methods with Coresim

**Rose-Hulman Ventures** | Project Engineer | Terre Haute, IN — June – August 2020
- Generated PCB designs with Cadence for production
- Conducted product hardware testing using oscilloscopes and
- Programmed hardware systems with MSP430 microcontrollers

**Projects:**

**Microchip AVR-IoT Cellular Mini Pollution Monitoring System** — Senior Project – 2022-2023
- Established backend on AWS server using Timestream and displayed on Grafana
- Standalone IoT devices setup to communicate by cellular through MQTT
- Developed a dashboard using Grafana to receive data from database

**LED Matrix IoT Project** — Spring 2023
- Served a user webpage made using Paho JavaScript web-socket to connect to MQTT broker
- Prototyped using an Arduino Uno communicating serially with ESP8266 for Wi-Fi connection

**Missed Branch Instruction Buffer Research** — Winter 2022-2023
- Conducted research using Gem5 simulator while using SSH into campus computer
- Wrote graduate research style paper using IEEE double column format

**FPGA Verilog Pong Game** — Fall 2022
- Implemented a user-controlled pong game displayed on VGA monitor
- Developed a system of a controller with one-shots, clocks, counters, and HSYNC/VSYNC modules for monitor

**TMJ Preventer Embedded System** — Summer 2020
- Designed the layout in Cadence schematics and produced PCBs for prototyping
- Provided electrical signals from masseter (jaw muscle) going through gain circuit to detect muscle clenching
- Included as inventor on patent

**Activities:**

**Pi Kappa Alpha Fraternity** — 2019-2023
- President | November 2021 – November 2022
- Vice President of Enrichment | November 2020 - 2021
- Attended seven leadership summits for personal and professional development

**CSERVE:** Career Services and Employer Relations Volunteer — 2019-2022
- Setup and serve company sponsors for Career Fair

**SGA Hall Representative** — 2019-2020

**Honors:** **Lilly Endowment Scholarship Award** | County award for full tuition in Indiana | Single winner of county