Jacob Ray

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SKILLS AND QUALIFICATIONS

Languages	C, C++, Golang, Typescript, Java, Python, MATLAB, MIPS/ARM Assembly
Software	Embedded Linux, FreeRTOS, CMake, Make, Multisim, Git

Experienced in both embedded systems and full-stack applications, with practical understanding of modern web technologies and microcontroller programming

EDUCATION

Seattle Pacific University, College of Arts and Sciences
Seattle, WA
Bachelor of Science in Computer Engineering (GPA 3.97/4.0) Expected Graduation: June 2026

- Relevant Coursework: Data Structures, Applications Programming, Computer Organization and Assembly Language, Electric Circuits, Electronics, Engineering Design, Microcontroller System Design
- Awards and Accomplishments: Dean's List (2022 - 2025)

TECHNICAL EXPERIENCE

Software Engineer Intern June 2025 - August 2025
Axon Enterprise, Seattle, WA

- Architected a proof-of-concept Golang microservice for a body camera device platform that allows businesses to generate LED pixel art and animations on the device exterior for branding purposes
- Ensured functionality and reliability of the service through carefully crafted end-to-end integration tests written in Scala
- Delivered a guided UI/UX for the generation process, featuring responsive visuals within an extensive React frontend

Software Engineer June 2024 - September 2024
CrewWorks Student Startup, WA/AZ

- Implemented a drag-and-drop task manager system to enable blue-collar workers to manage their work more easily, utilizing tRPC for seamless API communication and Prisma ORM to manage PostgreSQL database operations
- Developed intuitive home and project-management pages within our Next.js full-stack web application

PROJECTS

IR Remote Controlled Car March 2025 - April 2025

- Developed a real-time, wirelessly controlled robotic car using an RP2040 MCU programmed in C with FreeRTOS to ensure precise task management and meet strict timing constraints
- Programmed an IR receiver to process remote commands and an I2C motor driver to drive the DC motors powering the wheels

Heart Rate Monitor System December 2024

- Utilized an STM32 ARM Cortex-M4 microcontroller to process analog heart rate signals and transmit to PC via UART for analysis
- Developed drivers for the GPIO, RCC, UART, and ADC peripherals in the C programming language