

Dear Hiring Manager,

I am writing to express my interest in the Embedded Systems Engineer position in Sacramento. With several years of hands-on experience designing embedded systems from concept to production, spanning schematic design, PCB development, firmware engineering, prototype bring-up, and system-level debugging, I believe I would be a strong addition to your engineering team.

Across my roles, I have successfully delivered multiple microcontroller-based products using STM32, Nordic nRF52, NXP Kinetis series, and Xilinx Zynq SoCs. I have completed full design cycles starting from requirements and hardware architecture, through schematic capture and PCB design (using KiCad, Altium-style flows), prototype assembly, validation, and firmware implementation in C. I have also frequently contributed at the component-level, including mixed-signal interfacing, motor control, power systems, sensor integration, and real-time data acquisition. My experience includes developing firmware on RTOS (FreeRTOS, Zephyr) and bare-metal environments using C, with performance-critical modules written in optimized routines. I have also resolved field-reported hardware and software failures, performing board rework, signal-level debugging, and protocol analysis using scopes, logic analyzers, and in-system debugging interfaces.

Beyond low-level embedded development, I bring experience on the full software stack—having built Windows desktop applications in C#/NET and large-scale cloud and web services for device management and AI-based analytics. This enables me to design embedded systems not just as isolated electronics, but as products integrated into modern software ecosystems. While I have also held engineering leadership positions, I have remained deeply technical and still enjoy rolling up my sleeves, bringing up new hardware, writing C firmware, integrating GPUs or specialized processors, and solving problems directly on the prototype table.

I am excited about the opportunity to contribute to a role where practical engineering and craftsmanship matter—where ideas move directly from concept to board to working device. Thank you for your consideration. I would welcome the opportunity to discuss how my experience can support your team's product goals.

Regards
Sajesh