

Position: Senior / Principal Firmware Engineer

Location: San Francisco Bay Area

Overview:

Astera Labs Inc., a leader in purpose-built connectivity solutions for data-centric systems, is seeking a **Senior/ Principal Firmware Engineer** in Santa Clara, CA with experience implementing firmware for hardware-software interfaces on Systems on a Chip (SoCs) and microcontroller subsystems utilizing high-speed communications protocols such as PCI-Express (Gen-3 and above), DDR, Ethernet, NVMe, or similar interfaces.

Job Description:

The mission of this role is to architect and develop firmware and microcontroller subsystems for Astera Labs' SoC and systems products. Firmware is responsible for implementing the major differentiating features of Astera Labs' products. As such, firmware is considered equally important to the hardware, and the firmware team is often customer-facing accordingly to ensure the needs of the customer are fully comprehended.

Basic qualifications:

- Strong academic and technical background in electrical engineering. At a minimum, a Bachelor's in EE or Computer Science is required, and a Master's is preferred.
- Minimum 5 years' experience supporting or developing complex SoC/silicon products for Server, Storage, and/or Networking applications.
- Experience developing firmware to execute in on-chip microcontrollers as well as C-language software development kits (SDKs) to execute on system management controllers (e.g. BMC).
- Experience working with logic designers to architect and verify HW-SW interfaces on complex SoCs
- Professional attitude with the ability to prioritize a dynamic list of multiple tasks, to plan and prepare for customer meetings in advance, and to work with minimal guidance and supervision.
- Entrepreneurial, open-mind behavior and can-do attitude. Think and act fast with the customer in mind!
- Authorized to work in the US and start immediately.

Required experience:

- High level of proficiency in C (preferred) or C++, including development of C-based SDKs
- High level of proficiency in Python for automating pre-processors/post-processors and FW QC
- Working knowledge of software/firmware build environments, gcc/Make, Doxygen, and GitHub.
- Hands-on experience with Server, Storage, and/or Networking equipment (e.g. Network Switches).
- Familiarity with SoC interfaces to common IP blocks such as PCIe Controllers, DDR Controllers, NVME Controllers, AMBA/AHB interfaces, on-chip memory interfaces, and other similar interfaces
- Direct experience working on products with high-speed interfaces common in Data Center equipment: PCI-Express (Gen-3 and above), 100/400G Ethernet, Infiniband, DDR, NVMe, USB, etc.

Preferred experience:

- Experience developing firmware to execute in on-chip microcontrollers as well as C-language SDKs to execute on system management controllers (e.g. BMC)
- Experience developing embedded firmware for PCIe or Ethernet Switch products
- Experience with industry forums and collaboration workgroups such as OCP and OpenBMC