SDR Embedded Software Engineer/Architect

Position Description

SSC is seeking highly motivated mid and senior level engineers who will lead tasks and teams developing next generation wireless networking and RF system software. You will develop radio solutions on SDR hardware for advanced wireless communications applications. Application implementations include functionality such as sensing, signal processing, wireless protocols, and beamforming as well as advanced system capabilities that adapt transmit and receive behaviors in real time. You will participate in the entire product life cycle including architecture of the real time embedded system through test and evaluation support. Projects include applications to traditional Military and First Responder RF systems as well as adaptations of commercial (e.g., 5G) technologies. Successful Senior Engineer candidates will additionally provide mentoring and leadership to junior team members, and provide technical oversight for SDR development tasks and teams that include subcontractors and vendors.

Responsibilities

- Design and develop the architecture and embedded software solutions of innovative radio communications, sensing, and spectrum access systems
- Understand customer and/or project needs to implement effective SDR designs
- Interact with internal and external engineering teams on a regular basis to design and create interfaces with other system elements
- Provide technical and professional leadership and mentoring to junior team members

Required Technical Skills and Qualifications

- Experience with wireless networking and radio communications systems
- Strong understanding of embedded systems, hardware design, and signal processing concepts
- 5 to 10+ years demonstrated experience in architecting and developing complex embedded systems using FPGAs and in Linux
- Experience with SDR platforms such as ADRV9361-Z7035 or Xilinx RFSoC
- Experience with Xilinx Zynq devices or UltraScale MPSoC and an understanding of the design flow and toolchain use.
- Proficient with common programming languages such as Python, C++, and C.

Desired Additional Skills and Qualifications

- Experienced with one or more of the following:
  - Verilog for FPGA design, including implementing DSP algorithms in FPGA
  - FPGA interfaces with ARM processor applications
  - Linux software kernel and device driver development for Zynq processors
  - RTOS development for real-time operation on Cortex-A53 ARM or FreeRTOS on Cortex-R5
- Implementing wireless technologies on a SDR such as with the PHY, MAC, TDMA, RADAR, detection, classification, 5G, LTE, beamforming, or MIMO.

Professional Skills

- Experience leading projects and development teams
- Strong verbal and written communication skills

Other Qualifications

- Required: US citizenship or Permanent Residency
- BS or MS (preferred) in Computer Science, Electrical Engineering, Computer Engineering, or related field
- DoD SECRET clearance preferred

We Offer

- Mix of onsite, remote, and hybrid workplace
- Competitive pay and benefits (Medical insurance, 401(k) plan, paid vacation and holidays)
- Free parking
- Easily accessible to DC and VA (walking distance to Metro station)

To Apply

Email resume and letter of interest to jobs@sharedspectrum.com

Company Description

Shared Spectrum Company (SSC) is a pioneer in the development of innovative wireless advanced technologies that are revolutionizing the military and commercial use of spectrum. SSC has a unique technology development culture focused on technical excellence, innovation and execution. This is a unique opportunity to gain invaluable experience in one of the most important technological advancements in wireless communications technologies today.

SSC is an Equal Opportunity Employer.