



Engineering Position

Principal Software Engineer - Drivers

Location: Waltham, Massachusetts

Company:

Uniquely, IntervalZero's market-leading RTX real-time software transforms Windows into a real-time operating system, enabling economic and performance breakthroughs for systems builders in the global Industrial Automation, Digital Audio/Video, Medical and Mil-Aero markets.

Headquartered along the Boston technology corridor, IntervalZero is relentlessly focused on its customers and we share their pursuit of excellence. The company believes that continuous investment in both our real-time software technology and in strengthening customer relationships is essential for long-term success. That same level of investment and commitment extends to the IntervalZero Team, the company's most important asset.

IntervalZero's RTX RTOS Platform streamlines and simplifies the development of complex systems by leveraging x86 multicore multiprocessing and symmetric multiprocessing (SMP) functionality, and by extending Windows' capabilities with RTX. The platform reduces costs, boosts quality and performance, and significantly reduces reliance on proprietary hardware such as DSPs and FPGAs. IntervalZero's philosophy, combined with more than three decades of embedded software innovation, and the proven value of RTX have enabled the company to build a customer base of market-leading OEMs and end users in its target markets.

Position:

As IntervalZero expands into new markets, we are looking for strong technical developers to lead the charge. As such, the successful candidate for this position needs to be innovative and self-motivated when given mission critical challenges. They will be responsible for designing, developing, maintaining, and enhancing C/C++ code for our Real-time extension for Windows (RTX), with initial focus on new product features. In particular, this engineer needs to have extensive experience with developing and tuning Network Interface Card Drivers.

General:

- Experience taking a project from concept to completion; including design, prototyping, testing and troubleshooting
- Ability to translate standards to SW design requirements
- Ability to develop low-level software requirements from high-level system requirements

- Strong inter-personal and communications skills
- Ability to work in a small team environment or independently
- Ability to mentor junior software engineers

Requirements:

- Extensive experience developing device drivers (especially for NICs)
- Detailed knowledge of how to tune, debug, modify driver settings (PHY, etc.)
- Strong working knowledge of networking protocols – OSI Model (TCP/IP)
- Fundamental knowledge of Windows OS APIs
- Experience implementing networking standards in software
- Experience working throughout complete network stack
- Working knowledge of x86/x64 architecture
- Strong knowledge of C/C++
- Strong skills in measuring, analyzing, and optimizing for scalability and performance
- Experience developing and debugging multi-process / multi-threaded software

Pluses:

- Working knowledge of IEEE 802.1ba (Audio Video Bridging) and associated standards
- Strong working knowledge of network precision time services such as IEEE1588/802.1AS
- Strong working knowledge of traffic shaping (IEEE 802.1Qat)
- Experience working with audio device drivers/networked audio
- Experience with kernel-level debugging
- Experience working on embedded RTOS
- Knowledge of the Windows kernel
- NDIS knowledge and mini-port development
- Working knowledge of additional networking protocols – Ethernet, VLANs, routing

Qualifications and Educational Requirements:

- BS Computer Science or Electrical Engineering; MS preferred.
- Minimum 8 years in software or firmware development for networking components.

Please send resumes and inquiries to: careers@intervalzero.com