
DIGILENT®
An NI Company
We are looking for amazing colleagues.
Open possition:
Staff Embedded Software Developer (C/C++)
Learn more ›

About Digilent

About Us

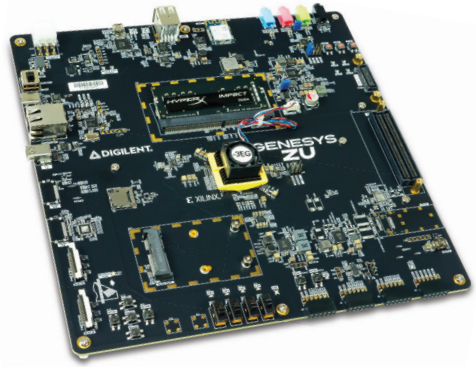
Since 2000, Digilent (a wholly owned subsidiary of NI) has provided embedded engineers, researchers, scientists, and students with cost-optimized products, tools, and application information for innovative, FPGA and SoC based hardware-software systems. Our customizable and flexible solutions will accelerate development time for even the most experienced professionals, while maintaining low barrier to entry for advancing engineers, students, and the perpetually curious.

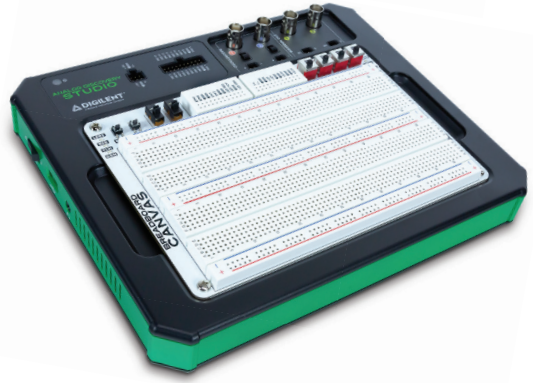
From our competitive pricing to the portability of our products and comprehensive documentation, we value delivering accessibility and lowering barriers to progress for our customers.

Digilent products are used throughout the world. Based in Pullman, Washington, we have offices, R&D, and manufacturing across three continents, as well as an extensive global distribution network so our customers can get the products they need as quickly and cost-effectively as possible.

What We Make

We specialize primarily in Xilinx-based FPGA/SoC development boards/kits and portable USB test and measurement devices, all designed to be owned by and used from an engineer's or student's desk. We also offer a variety of expansion modules (Pmods and Zmods) to create flexible I/O options for our other products.





Staff Embedded Software Developer (C/C++)

Digilent designs original products that fulfill its mission of empowering engineers to do their jobs better. All its hardware products are based around FPGA or an ARM/FPGA hybrid and run both bare-metal and Linux-based software. Some are purpose-made closed-source, others open-source that the user can customize and develop further.

Digilent has an opening for a talented Embedded Software Developer. In this position you work primarily with Linux and Xilinx development tools. The primary programming languages targeted are C, C++, Python, and Tcl.

This is an excellent opportunity to practice and learn new skills in embedded development, computing architectures, network communication, data processing, real-time system services, and high bandwidth data transfers from the chip level throughout the data chain all the way up to the PC or the cloud.

Core Job Responsibilities
- Develop or enhance software support for instrumentation products and FPGA development boards
- Specify, design, implement, document, and test software features and capabilities for new and existing products
- Write documentation for users: tutorials, reference manuals, getting started guides
- Provide help to customers over email and forum
- Provide technical expertise, support, and training to team members
- Work and interact with a geographically distributed R&D staff
- Troubleshoot problems reported by customers and internal users
- Review product specifications and customer documentation customers.
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Qualification
- B.S. in Computer Science, Computer Software Engineering, Informatics, Computer Engineering, Electrical Engineering, or related studies
- 1-5 years of industry experience as software application programmer
- Strong understanding of computers and programming languages
- Proficiency in text-based programming languages, preferably C/C++, and development experience in application programming, knowledge on data structures & algorithms
- Strong understanding and experience of software design and architecture principles
- Strong work ethic and drive to succeed
- English Language Competency/effective communication skills
  - Can clearly and concisely communicate in English so that persons you work with can understand you clearly, particularly in technical conversations.

Preferred Qualifications
- Technical Writing

Required Skills
- C, C++, scripting languages such as Python, Tcl

Preferred Skills
- Low-level embedded system software and device drivers for FPGA with baremetal or Linux
- Experience with most of the following: Git, Embedded Linux, Linux kernel modules, U-boot, DeviceTree, Petalinux, Yocto, FPGA, VHDL / Verilog, Vivado/Vitis, Xilinx Zynq/Zynq UltraScale+ processors
- Experience with device drivers such as Ethernet, PCIe, DDR4 memory controller, MIPI Camera, 10GbE, HDMI, FMC, UART, SPI, and I2C.
- Graphical User Interfaces in Qt
- Software implementation for instrumentation products: sampling, high-bandwidth transfer rates, transfer protocols, graphical data representation, interrupt handling

Demonstrate ability to:
- work effectively in a group development environment;
- problem-solve effectively - diagnose technical issues and propose reasonable solutions; enjoy problem solving;
- take initiative, be a self-starter, and work independently;
- persistently drive tasks and projects to successful completion;
- take ownership of goals, project schedules;
- listen attentively and grasp fast-paced technical conversations;
- provide feedback and contribution in area of excellence; and
- quickly learn applicable technology, systems, and products.

Primary Work Location
Romania - Cluj Napoca, Bvd. 21 Decembrie 1989, no. 77, 2nd floor Cluj-Napoca, 400604

Secondary Work Location
We are changing how we work by offering more flexibility. Digilent/NI has decided to take a hybrid approach (both on- and off-site) at an aggregate level.

Compensation package
The compensation package has multiple elements, both fixed and variable: salary (fixed), annual performance incentive (variable), employee stock purchase plan (variable, optional), medical benefits.

Send us your CV at

jobs@digilent.com