John C. Gentile

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I'm a hard working, self-driven engineer & team leader that excels in whatever task is given. I have broad spectrum product development & life-cycle experience from the board level to the digital and software domains.

Professional Experience

National Instruments- Austin, TX

Product Support Engineer – FlexRIO & High-Speed Serial   *Aug 2016 – Present*

- Sole R&D support & product quality owner for NI FlexRIO and High-Speed Serial product lines. Provide direct, top-tier support to customers & key accounts with high-speed communications/protocols & DSP applications.
    - Direct-to-customer, paid consulting on custom FlexRIO Modules that interface with high-speed ADCs/DACs or other interfaces such as proprietary bus or SERDES protocols. Services encompass: board level & VHDL design reviews, constraint generation & advanced timing analysis, integrated debugging, signal integrity analysis and some mixed-signal design.
- Leads team of 3 other PSEs in their daily tasks and projects as PSE Team Leader using an Agile methodology.
- Participated in rigorous internal and 3rd party courses on subjects such as Digital Design Best Practices (covering advanced VHDL development, test-benches in Modelsim, static timing analysis and common pitfalls which culminated to creating a PCI data acquisition board), Board Level Best Practices & High-Speed PCB Design (high-performance board design and layout techniques with signal integrity using HyperLynx) and Analog Design Best Practices (best practices for electrical engineers on high-precision instrumentation devices).
- Active teacher and speaker- to internal engineers and customers- on subjects such as High-Throughput FPGA Development and integrating custom IP into LabVIEW FPGA. Presented at NI Week Conference on Advanced Debugging & Simulation techniques using Xilinx Virtual Cable and Vivado ILAs.
- Leverage marketing and sales resources to create customer application example code and technical white papers covering new FPGA development techniques and industry best-practices. Notable, published projects: FlexRIO Peer-to-Peer GPU, Remote FPGA Debugging with ChipScope, XVC and LabVIEW, JESD204B Simple Streaming, Serial RapidIO Simple Communication and High-Speed Serial Streaming to Disk.

Applications Engineer   *Sep 2015 – Aug 2016*

- Provided world-class customer support and technical knowledge for a wide variety of automated test and high-performance embedded products (i.e. RF test & communication prototyping, open-FPGA, and high-speed serial devices) to a large array of customers that spanned nearly every industry of science and engineering.
    - Designated RF & FPGA Subject Matter Expert in Applications Engineering to help educate other Applications Engineers.
    - Worked and developed test & prototyping systems with RF & High Speed Serial devices for applications such as Radar, 802.11, LTE, Bluetooth, High-Performance DSP,10G Ethernet, Aurora, JESD204B, etc.
- Acted as a pre-sales consultant for product selection and system proof-of-concept as well as post-sales system set-up, continuous troubleshooting/debug and code review/example-development.
    - Languages and IDEs used: LabVIEW, VHDL/Verilog, TestStand, Vivado, Visual Studio and C/C++/C#
    - Assisted sales engineering generate new leads for key companies by making true connections with customers and focusing on their company and how to help them achieve their strategic goals.

Degrees & Certifications

Bachelor of Science- Electrical Engineering, Virginia Polytechnic Institute & State University   May 2015
- *Organizations:* Corps of Cadets, President Theta Chi Fraternity Eta Lambda Chapter, IEEE, Student Government Association & Intelligence Community Center of Academic Excellence

Certified TestStand Developer (CTD) (200-916-10026)   February 2016
Certified LabVIEW Developer (CLD) (100-916-10189)   March 2016
Certified LabVIEW Associate Developer (CLAD) (100-315-12914)   November 2015