John C. Gentile

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[GitHub/JohnnyGOX17](https://github.com/JohnnyGOX17) **·** [LinkedIn](https://www.linkedin.com/in/john-gentile-6485b947/) **·** [John-Gentile.com](https://www.john-gentile.com/)

I'm a hard working, self-driven hardware 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 software domain.

# Professional Experience

## National Instruments- Austin, TX

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

* 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.
* Performs direct-to-customer, for-cost consulting on custom FlexRIO Modules using cutting-edge, high-speed ADCs, DACs and other converters. Services encompass: mixed-signal/analog design, board layout/routing assistance, VHDL/Verilog design reviews, constraint generation & advanced timing analysis, integrated debugging, high-speed serial/SERDES protocols, and signal integrity analysis.
* Mixed-signal HW design and V&V for NI FlexRIO product line utilizing latest EDA tools such as Mentor xDx Designer for schematic and layout and HyperLynx and Cadence tools for simulation. Experience includes: high-current FPGA power supply design and test, multi-gigabit transceiver interfaces and analog front end 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/simulation in Modelsim, static timing analysis and common pitfalls, interfacing with modern bus interfaces like PCIe, PIO/DMA for driver-level software, which culminated to creating a PCI data acquisition board), Board Level Best Practices & High-Speed PCB Design (high-performance, mixed-signal 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, hardware designs and technical white papers covering a variety of techniques & best-practices. See [John-Gentile.com](https://www.john-gentile.com/projects.html) for portfolio.

### Applications Engineer (Engineering Leadership Program) 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 Linux, RF & FPGA Subject Matter Expert in Applications Engineering Department
  + 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