

ANTHONY M. ANDRIANO, P.E.

Senior Engineering Analyst
anthony@pseglobal.com



February 10, 2020

PROFESSIONAL EXPERIENCE

Paragon Structural Engineering, LTD.

Senior Engineering Analyst (April 2014 – Present)

As a Senior Engineering Analyst for Paragon Structural Engineering, LTD. (PSE), Mr. Andriano is primarily responsible for three departments: software engineering and development, engineering analytics, and information technology.

Mr. Andriano's software engineering services include custom design of software, algorithms, and processes to solve and implement solutions to technical and logistical data science problems using the following languages, platforms, and services: C/C++, Python, Perl, PHP, Bash, HTML5, Javascript, Matlab/Octave, Git/Github, Subversion, Amazon Web Services, Microsoft Azure, Windows Server 2012/2016, all major distributions of Linux, and many other industry standard modeling and analysis tools.

Mr. Andriano's engineering analytics services include structural engineering and associated mathematical analysis, abstract problem analysis and interpretation, code compliance, technical writing, and electrical engineering consultation and design. His typical projects entail software-based implementations of multidisciplinary engineering principles and processes for design, failure, and forensic analyses.

Mr. Andriano's information technology services include infrastructure design, implementation, and management of the following services and components: domain controllers, network attached storage devices and file servers, cloud-based voice over IP phone systems, automated backup and recovery systems, client workstations, information security and intellectual property management, onboarding and offboarding employees, crisis and disaster planning and management, vendor installations and contracts, and technical support. Mr. Andriano is always on-call for downtime mitigation and restoration to provide consistent, reliable, and cost-aware computing infrastructure and technical services.

Andriano Engineering and Consulting

Owner (December 2010 - Present)

As the owner of Andriano Engineering and Consulting, Mr. Andriano leads teams of engineers, project managers, and subcontractors in electrical and computer engineering designs, investigations, and remedial repairs and analyses as a consultant, design engineer, software engineer, and debug engineer. His past projects include the following: switched mode power supply design, residential and commercial electrical service design and installation, application programming interface development for web and embedded services, full stack solutions in Linux, OSX, and Windows, embedded Bluetooth and WiFi systems, classified military contracts involving laser and wind based weapons ranging systems, mobile game development for iOS, stochastic modeling of data flow through high bandwidth interconnects, radiation hardened spacecraft flight computer subsystem design and prototyping, FPGA uplink and downlink radio encoders for commercial SATCOM, and commercial electrostatic inkjet printers.

His typical design projects involve requirements definitions and contractual negotiations, design planning and oversight, intermediate deliverables, prototype demonstrations, final deliverables, and long-term support. Development of software and hardware solutions for commercial applications includes teams of engineers from other engineering firms, subcontractors, and multidisciplinary professionals such as artists and lawyers. Embedded applications include human performance sensors and monitoring systems, automotive tracking systems, military ranging systems, and radar-based object tracking systems. SATCOM applications include hardware and software defined radios, front end processors, customer data converters, encoders and decoders, encryption and decryption, protocol and process compliance, installation, management, debug, and support of ground station equipment, training, and technical documentation creation and distribution.

Mr. Andriano's consulting projects include site visits, product installations, analyses for product viability, high volume manufacturing guidance and management, and software engineering services such as code reviews, algorithm analyses, optimization techniques, and maintenance cost reduction. Mr. Andriano has frequently performed electrical service planning, design, and code compliance for residential and commercial structures as well.

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PROFESSIONAL EXPERIENCE (CONTINUED)

Intel Corporation

Analog Component Design Engineer (June 2012 – March 2014)

Component Design Engineer (January 2009 – May 2012)

As a Component Design Engineer for Intel Corporation, Mr. Andriano performed digital component design in an enterprise grade CPU intended for data center services. Mr. Andriano's contributions included cache and memory interface circuits, high speed digital multiplexers, data manipulation circuits such as endianness swappers in the integer pipeline, simulation and analysis tools, debug methodologies, and best practices development. Throughout his tenure at this position, he was also involved in front end software development specifically to streamline collateral generation, accuracy, and traceability.

As an Analog Component Design Engineer, Mr. Andriano primarily designed low and high-speed analog components in the PCI Express Gen 1/2/3 transceiver, which were also used in the Intel Proprietary QPI interface. In addition to design, Mr. Andriano was responsible for PCI-E/QPI debug methodologies, data management, and failure analysis. To perform these duties, Mr. Andriano created a full-stack software infrastructure to aggregate and correlate debug processes and results with design simulations to pinpoint failure modes and to facilitate low impact remedial design work.

PROFESSIONAL LICENSES

State of Texas

Professional Engineer #122918

State of Colorado

Professional Engineer #50746

EDUCATION

Lipscomb University (Nashville, TN)

Bachelor of Science in Electrical and Computer Engineering, 2008 - Honors Graduate, GPA 3.6 / 4.0

PROFESSIONAL CERTIFICATIONS AND TRAINING

Satellite Communications Design and Engineering, Applied Technology Institute

EXPERT WITNESS DESIGNATION

This curriculum vitae shall not be used for expert witness designation unless an authorized proposal has been executed with this firm.