



# Vince Spinelli

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## **.EDUCATION**

- St. Francis High School [1994-1999], Athol Springs, NY [716-627-1200]
  - National Honor Society
  - Various charity and community work, varsity football
  - New York State Regents, top 3 pct. graduating class
- State University of New York at Buffalo (U.B.) [2002-2007], Buffalo, NY [716-645-3115]
  - member I.E.E.E.
  - focus on power electronics, instrumentation, and the integration of computer control and powered devices
  - Capstone design project Team Leader (2 projects)
    - (a) solar power implementation (mobile), (b) utility usage monitoring, reporting, and evaluation

## **.CERTIFICATIONS**

- ... Bachelor of Science: Electrical Engineering (A.B.E.T. accredited)  
U.B., Dept. of Engineering and Applied Sciences. (2007)
- ... Six Sigma: Green Belt  
Ford Motor Company, Buffalo Stamping Plant. (2004)
- ... NFPA 70E  
initial: Ferguson Electric (via Goodyear Dunlop Tires) (2007)  
renewed: Ferguson Electric (via Sorrento Lactalis) (2012)  
renewed: General Motors (internal) (2017, 2020, 2022)
- ... ABB Robotics – IRC5 Welding I and II.  
ABB (2019)
- ... Functional Safety Engineer: Machinery  
TUV Rheinland (2020)

## **.PROFESSIONAL COMPETENCIES**

- adherence to standards of New York State Pasteurized Milk Ordinance and FDA regulations
  - electronic record keeping ( FDA CFR 21 Part 11 )
- Manufacturing Standards / Audit Compliance
  - ISO 2001, 9001, Safe Quality Food (SQF), General Motors Best in Quality (BIQ), GMP
- Capital Project Proposal and Management
- Breakdown management and troubleshooting / Root cause analysis
- Standard Operating Procedures / Quality Operating Systems: Process drafting, document control, education of the workforce, and enforcement.

## **. TECHNICAL COMPETENCIES**

- residential, commercial, and industrial power installations, retrofit, and repair (< 600 V) in accordance with NFPA-70.
- electrical safe work practices, including hot-work in accordance with NFPA-70E.
- electronic control via discrete components and Programmable Logic Controllers / Programmable Automation Controllers.
- system engineering and design of capital equipment: electrical design, schematic, component selection, build supervision, programming, and commissioning.
- facility networking and communications: backbone specification and design, deployment, and maintenance of Industrial Ethernet Networks over managed and unmanaged components.
- industrial communication protocol conversion ( serial networks, ethernet networks, proprietary networks, etc. )
- HMI / SCADA / Historian interface programming via proprietary units and open source programming solutions.
- motor control (VFD / Stepper / Servo)

- thermal control systems for Ovens / Furnaces (SCR and Natural Gas) in accordance with Factory Mutual and NFPA-86 guidelines
- Vision systems, barcode scanning, and lot tracability ( Datalogic, Cognex, and Keyence )
- integration and service of Yaskawa, ABB, and Allen Bradley motor control products
- robotics systems including ABB (proficient), Yaskawa/Motoman (exposure), and Fanuc(exposure).
- Wide variety of transducer and transmitter experience (mass meters, flow meters, pneumatic, pressure, vacuum, position, strain, inductive, capacitive, fibre, encoders, etc.)
- Windows Server and Linux Server specification, build, deployment, maintenance, automation, and programming.
  - Computer programming - pHp, HTML, Python, Apache, and MySQL (LAMP / WAMP Server stacks)

## **.WORK EXPERIENCE**

### **General Motors, Lockport NY [05 / 2017 – Present] (Direct)**

- Senior Controls Engineer
  - support the Manufacturing Engineering Team in efforts to maintain Production Equipment, implement Quality / Ergonomic / and Safety Improvements, support ReTooling and Equipment RePurpose.
  - facilitate integration between Business Network, Machine Network, and Plant floor equipment.
  - support a variety of Motor Control products including Emerson/Nidec Control Techniques Servos , Allen Bradley Powerflex 4/7/525/750/ etc., Allen Bradley Kinetix Servos over Ethernet and Sercos.
  - support and maintenance of legacy and modern Allen Bradley controllers, and legacy and modern HMI's from TCP, GE, Xycom, and Allen Bradley.
  - support and maintenance of Scada Systems including Rockwell FT View SE, Invensys Wonderware InTouch, and GE Cimplicity.

### Lead Electrical Engineer / Programmer for various projects, including:

- ABB FlexArc Weld Cell Common Welder Platform – creating a flexible / common engineered platform for (at the time) 10 distinct weld cells. Commonized software and hardware into Generational groups, and permitted the exchange of tooling among any of the machines (providing the ability to 'run anything – anywhere' in the event of emergency).
  - Includes the launch / commissioning of 30+ weld fixtures during the 2019 launch cycle.
- Electrical and Controls update of Legacy Braze Furnaces – develop a modern controls package and electrical design for 20+ year old controlled atmosphere braze ovens and roll out.
- Project Management (source, build, and commissioning) of 2 modern Braze Furnace lines, employing dry flux controlled atmosphere braze for various styles of heat exchangers; also served as the Lead Electrical Engineer.
- Integration of complex safety circuits for compliance with FM / NFPA-86 / NFPA-70 / ISO-12100 / IS-13850, etc.
- Task Based Risk Assessment and mitigation for various projects.
- Various QC and throughput driven efforts for the high-volume K2 LD Truck product (2017-2019).
- Similar efforts for the replacement product (with similarly high volume) T1 LD and HD Truck product portfolio (2018-2020).
- Various H&S driven Verification and Validation audits of new and repurposed equipment (safety control circuits – compliance and update management).
- Braze process error proofing / interlocking through RFID systems; tracking product into the process and managing (interlocking) equipment for 'on-the-fly' changeovers.
- integration of high speed process monitoring video systems for analysis of critical plant processes, improving failure mode reactions and enabling corrective (rather than reactive) responses.

### EQUIPMENT FAMILIARITY:

- Automated presses [small] and Tank Subassembly (Cell Operations)
- Metalworking and Assembly (Cell Operations)
- Oven / Furnace process (Electric and Gas fired)
- Robotic Welding (Subassemblies)
- Mill Forming (Material WIP Operations)
- Heat Exchanger Stacking (Final Assembly)
- Leak Testing and Dressing (Post Assembly / Post Braze)

### **RS Automation, LLC. [02 / 2015 – 05 / 2017] ( Direct )**

- (Lead) Electrical Controls Engineer

- engineering and design of controls and automation (PAC/PLC/HMI/SCADA), deployment and documentation of new machine builds as well as expansions and retrofits of existing processes.
  - Rockwell Historian / SQL Server / Vantage Point server
  - Invensys Wonderware Historian
  - Logix5000 platform controllers and remote I/O (specifically DeviceNet and Eth/IP), SLC / Micrologix platform controllers, the Micro 800 series mini-controllers, etc.
  - RSView32 Studio, FT View Studio SCADA systems
  - Invensys Wonderware Intouch
  - development of Ozone Injection systems for use in sanitation, wastewater treatment, and farm / dairy applications.
- Lead Electrical Engineer / Programmer for the following improvement projects at a Leading Dairy Manufacturer located in Batavia, NY
  - 32oz Zithropak Rotary Filler Integration
  - Mixproof valve cluster re-design SYT-UMPV
  - Wonderware Application and Historian Server migration, rebuild, and recovery initiative.
  - Osgood cup-filler Clean in Place (CIP) re-design
  - Mixproof valve cluster soft-interlock design and implementation for NYS Agrimarkets Compliance (Sudmo and GEA valves)
- Lead Electrical Engineer/ Programmer for the following improvement projects at a Leading Yogurt Manufacturer located in Batavia, NY
  - Finnah continuous Fruit Blending
  - Rockwell Factory Talk Applications Platform / Batch system Audit and Analysis (remediation).
- Lead Electrical Engineer/ Programmer for the following improvement projects at a Leading Ceramics Manufacturer located in Alfred, NY
  - Autoline Oven / Dryer conveyance and control upgrade / addition
  - Autoline Oven / Dryer integration with Robotic Spray Cell
- Lead Electrical Engineer / Programmer for the following projects at a Leading Tape and Fabrics Manufacturer located in Albion, NY
  - V38 Adhesive formulation batching process: fully automated a previously manual batch, blend, and transfer process, including design and commissioning of a new motor control center, various control panels, and interfaces.

**Milk Bone, Big Heart Pet Brands** [07 / 2014 – 02 / 2015] ( Direct )

- Electrical Supervisor: Maintenance
  - responsible for skilled tradesmen (Electricians) across all shifts, time utilization, prioritization, development of internal workforce, and mentoring.
    - developed roadmap for the education and training of Skilled Tradesmen (an Apprenticeship Program for the IAM) to fall in line with existing practices observed among UAW / USWA / and IBEW.
      - provided a path by which existing veteran employees could virtually immediately vet themselves and be granted legacy credentials
      - provided a clear and distinct method of handling new-hires, vetting them, and ensuring compliance
  - troubleshooting and maintenance of legacy Modicon, TI (Siemens / CTI), and Allen Bradley controllers; and a variety of HMI's (TCP, Xycom, et. al.)

**EQUIPMENT FAMILIARITY:**

- Batch / Blend operations
- Vacuum transfer of dry materials
- Rotary Molding
- Oven / Furnace process (Gas fired)
- High Speed Scale Systems (Ishida)
- High Speed Packaging via Box Fillers
- Final Packaging via Case Erectors, Packers, and Sealers
- Robotic Palletization
- Complex Conveyor Integration

**RS Automation, LLC.** [07 / 2013 – 12 / 2013 Direct || 01 / 2014 – 07 / 2014 Contract]

- Electrical Controls Engineer
  - **SEE ABOVE** ... RS Automation, LLC [02 / 2015 – 05 / 2017 ]

- Lead Electrical Engineer / Programmer for the plant expansion at a Leading producer of custom Syrups, Fillings, Sauces, and Toppings, located in Williamson NY.
  - 300 % increase in raw liquid storage
    - silo / tank process integration
    - "smart" tank behavior... any product in any tank at any time, handled seamlessly by the process systems based upon product ID code / recipe requirements
  - batch / blend process integration
  - CIP integration
    - new clean in place system for the raw liquid ingredient silos and process lines.
- Lead Electrical Engineer / Programmer for the migration of a Municipal Water Treatment Plant to a secure cell network controls architecture
  - secure Machine-to-Machine networking
  - operation of remote pumping stations, holding tanks, and pipelines automatically by controllers located at the main office
  - remotely accessible by Chief Stationary Engineer / Operator via secure VPN tunnel

**Sorrento Cheese of Buffalo, Lactalis American Group [2008 – 06 / 2013] ( Direct )**

- Technical Specialist / EE
  - responsible for power, controls, instrumentation, automation, deployment and documentation; project management (new equipment and upgrade) / process installation and setup.
  - focus on Continuous Improvement and fluidic integration of equipment.
    - deployed 35 integrated Datalogic Vision systems to facilitate a successful lot-traceability system
    - electrical breakdown management, system failure troubleshooting, diagnosis, and repair.
    - mentor tradesman (classroom and on-the-job) on electrical work practice / topical knowledge.
    - function as a part of the Packaging Maintenance / Continuous Improvement Team
  - designed and built an independent Historian, Data Acquisition, and Machine Control server software package, implemented and vetted (via NYS Agrimarkets PMO Compliance Inspection), and released the package as Open-Source freeware (compatible with any OPC-DA friendly plant floor devices)
    - developed mod\_OpenOPC, an OPC Client and middleware.
    - developed syphon, a Telnet Client and OPC data middle-man.
    - developed S.E.E.R. (System and Environment Effective Reports), a SCADA / HMI / and Historian.
    - developed W.A.R.R.I.O.R. (Workplace Authenticated Runtime Resource Input and Output Reporter), a robust O.E.E. / T.E.E.P. (MES).
    - developed fieldgate\_dm3\_reporter, to export data to Endress-Hausser Fieldgate DM3 servers.
    - developed STaRBUC (Linux Standard Tape Resource Back-Up Console), a web app to allow authenticated backup to tape devices.

**EQUIPMENT FAMILIARITY:**

- HTST Pasteurization, Separation / Clarification, Ultra Filtration, and Reverse Osmosis
- Batch / Blend operations
- High Speed Packaging via Cup Fillers, Vacuum Form Film, and Flo-Wrapping
- High Speed Scale Systems (Eagle and Ishida)
- Final Packaging via Case Erectors, Packers, and Sealers
- Robotic Palletization
- Complex Conveyor Integration

**Goodyear Dunlop Tires, North America LTD. [2007] ( Contract through EGW Associates )**

- Maintenance Engineer (Stock Prep - Extrusion)
  - planned, designed, and executed day-to-day continuous improvement maintenance projects.
  - excelled at on the spot troubleshooting, gained my earliest experience troubleshooting Reliance Automax / Modicon 984 & Quantum / and Allen Bradley PLC-5 controllers.
  - maintained a strong working relationship with operators and mechanics (directly supervised ~20 skilled tradesmen).
  - central maintenance contact for production, and worked closely with plant engineering to mitigate larger issues.
    - cut unplanned downtime nearly in half for the Extrusion department ( translated to a 10% increase in Production uptime per period ).
    - utilized feedback from machine operators to mitigate issues.
    - enforced department's duty to execute scheduled preventative maintenance.

**EQUIPMENT FAMILIARITY:**

- Hot and Cold Feed rubber extruders
- multi-level conveyors, dancer systems, product measure-and-cut in motion
- rolling mills

**Ford Motor Company, Buffalo Stamping Plant** [2004-2005] ( Direct )

- Material Handling Engineer (Jr. - Co-Op)
  - developed departmental procedures, packaging specifications and elevated cultural / operational standards for ISO-9001 compliance.
  - developed electronic database for secure plant-wide access to specifications by floor personnel.
  - supervised and served as staff adviser to UAW Natural Work / Improvement Group.
- Material Handling's liaison to Quality Control, Kaizen production efficiency programs, etc...
  - Executed two Six Sigma Green Belt projects for a roughly \$20k annual savings.
  - coordinated material and equipment migration, via lean mfg. standards, for the launch of the Edge.

**.INDEPENDENT VENTURES**

**SpinelliCreations.com** [2002 → 2019, idled through winter 2020]

- Founder / Maintainer
  - SC was started as a hobbyist project in the winter of 2002 / 2003; it grew into a small server farm.
    - The project has been mostly idle 2019 / 2020; although it continued to operate and provide services to various organizations up until that time.
      - In February of 2021, the project was officially terminated due mostly to hardware obsolescence and of available time to devote to the project in earnest.
    - For nearly 20 years, it provided Open Source software pipes with uptimes that rivaled major universities. It is estimated, based on AWStats Statistics gathered between 2007 and the close of 2020, that during that time alone, SpinelliCreations.com served over 1.6 Peta-Bytes of Open Source software to the community.
      - ... that's 1,600 Terabytes, or 1,600,000 Gigabytes.
      - It remains a meaningful contribution to the Open Source movement and was one of the last RPMForge / Repoforge servers to go offline (providing support for Enterprise Linux 4, 5, 6 and 7).
    - Spinelli.co is now operated utilizing a small subset of more recent hardware for the purpose of personal home networking, surveillance, security, and web-presence (for example: email, cloud collaboration, etc.).
  - Engineering Consultation and Design
    - residential / light commercial / industrial
  - IT / Tech services
    - LAMP Server Hosting
    - Cloud Storage
  - Root software repository for various software packages
    - Official North American distribution mirror for the following Open Source Software Initiatives:
      - Apache Software Foundation
      - GNU
      - The Savannah Project
      - CentOS Linux Repository
      - Repoforge ( RPMForge )
      - RPMFusion
    - Unofficial distribution mirror for the following Open Source Software Initiatives:
      - Blade Encoder
      - pHp
      - Oracle MySQL

EOF.