



# Vince Spinelli

C.V. July 2017

## **ELECTRICAL CONTROLS ENGINEER**

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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 percentile 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)
    - solar power implementation (mobile)
    - 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)

## **.PROFESSIONAL COMPETENCIES**

- adherence to standards of New York State Pasteurized Milk Ordinance and FDA regulations
  - pasteurization, hold time of raw materials, sanitation
  - electronic record keeping ( CFR 21 Part 11 )
- Safe Quality Food guidelines / audit compliance
- ISO 2001 and ISO 9001 audit preparation and compliance
- Capital Project Proposal and Management
- Good Manufacturing Practices ( GMP ) Compliance
- 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), including hot work.
- 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.
- Cadence OrCAD Schematic Capture (drafting and maintenance of Electrical Part Libraries / Drawings / etc.)
- 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 guidelines
- Vision systems, barcode scanning, and lot tracability ( Datalogic, Cognex, and Keyence )
- integration and service of Yaskawa, ABB, and Allen Bradley motor control products
- Wide variety of transducer and transmitter experience (mass meters, flow meters, pneumatic, pressure, vacuum, position, strain, inductive, capacitive, fibre, encoders, etc... etc...)
- Windows Server and Linux Server specification, build, deployment, maintenance, automation, and programming.
- proficient in pHp, HTML, Python, Apache, and MySQL (LAMP / WAMP Server build and maintenance)

## **.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 vision systems (Cognex)
  - 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 Invensys Wonderware InTouch, and GE Cimplicity.

#### EQUIPMENT FAMILIARITY:

- Knotch, Lance, and Stamp (Cell Operations)
- Metalworking and Assembly (Cell Operations)
- Oven / Furnace process (Electric and Gas fired)
- Robotic Welding

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

- 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 CIP / Pasteurized water flush re-design
    - Mixproof valve cluster soft-interlock design and implementation for NYS Agrimarkets Compliance (Sudmo and GEA valves through facility)
  - Lead Electrical Engineer/ Programmer for the following improvement projects at a Leading Yogurt Manufacturer located in Batavia, NY

- Finnah 2 continuous Fruit Blending
- Rockwell Factory Talk Applications Platform / Batch system Audit and Analysis, Recommendations for Consideration.
- 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 - 07 / 2014]

(( 07 / 2013 - 12 / 2013 Direct || 01 / 2014 - 07 / 2014 Contract ))

- Electrical Controls Engineer
  - **SEE ABOVE** ... RS Automation, LLC [02 / 2015 - Present ]
  - 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 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
- to compete with Rockwell Historian and GE Fanuc's Plant-Apps Package, I designed and built an independent Historian, Data Acquisition, and Machine Control server software package, implemented and vetted it (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 open source OPC Client and middleware.
  - developed syphon, an open source Telnet Client and helper for mod\_openopc.
  - developed S.E.E.R. (System and Environment Effective Reports), an open source SCADA / HMI / and Historian.
  - developed W.A.R.R.I.O.R. (Workplace Authenticated Runtime Resource Input and Output Reporter), a robust open source 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), an open source 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, minimizing downtime through the use of PLCs, and 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.
  - 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 the standard for ISO-9001 compliance.
- developed electronic database for 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, Kaisen 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.

## **.INDEPENDANT VENTURES**

### ***SpinelliCreations*** [2002 - Present] ( Owner / DBA )

- Founder / Maintainer
  - SC was started as a side project in the winter of 2002 / 2003. Over the years, what was born out of necessity has taken on a mind of its own.
  - Engineering Consultation and Design
    - residential / light commercial / industrial
  - IT / Tech services
    - LAMP Server Hosting
    - Cloud Storage
  - Root software repository for various software packages:
    - mod\_OpenOPC
    - SEER
    - DDOS Deflate EGE
    - others
  - Official North American mirror for the following Open Source / Community Software Initiatives:
    - Apache Software Foundation
    - GNU
    - The Savannah Project
    - CentOS Linux Repository
    - Repoforge ( RPMForge )
    - RPMFusion
  - Unofficial mirror for the following Open Source / Community Software Initiatives:
    - Blade Encoder
    - pHp
    - Oracle MySQL