**Mike Gilardi**

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**Professional Summary**

Ambitious and capable Electrical Controls Engineer with 8+ years’ designing, programming, and commissioning automation systems across manufacturing, material handling, and process control industries. I specialize in PLC/HMI programming, control panel design, and integration of safety systems compliant with NFPA, UL, and ISO standards. Proven track record of delivering complex projects on time, reducing downtime, and improving production throughout. Continuing a lifelong dedication to furthering my engineering education, managerial skills, all while staying on top of new technologies in my field, currently exploring ways to implement AI into Automation and Controls

**Education & Certifications**

**B.S. in Electrical Engineering** – ***University of Massachusetts, Amherst – May 2009***

**Certifications –**

Siemens TIA Portal Programming Level 2, Allen-Bradley Advanced Programming Concepts

OSHA 10 Certified, Balluf I/O Link, Bosch Rexroth Field Service

**Professional Experience**

**Jan 2024 – Jan 2025**

*Evolution Motion Solutions –* Product Manager

* Spearheaded the launch of Bosch Rexroth’s CtrlX automation platform in the New England market, serving as the regional product expert across a diverse portfolio including EtherCAT-based servo systems, AC/DC drive solutions, and open-source industrial controls.
* Led technical sales and integration efforts for multi-vendor automation ecosystems, including Yaskawa VFDs, Kassow collaborative robots, and Balluff I/O Link systems, tailoring solutions for research-driven clients in a design-centric region.
* Developed and proposed strategic initiatives to penetrate a market dominated by legacy systems (e.g., Allen Bradley, Siemens), including leveraging Detroit-based “Motioneers” for backend engineering and offering complimentary commissioning support to drive adoption.
* Successfully influenced a $1–4M annual opportunity by demonstrating hands-on commissioning expertise and deep product fluency, earning client trust over larger competitors.
* Navigated post-merger organizational shifts and evolving role expectations, ultimately departing due to misalignment between promised autonomy, support resources, and compensation structure.

**March 2023 – Jan 2024**

***Angelus, formerly Pneumatic Scale Angelus – A Barry-Wehmiller Packaging Company – Electrical Engineer IV – Lead Electrical Engineer***

* Lead Electrical Engineer for the Clearwater division of Pneumatic Scale Angelus, a Barry Wehmiller Packaging company.
* Sole EE/Controls Engineer responsible for every aspect of design, review, integration, programming, debugging, and startup and SCADA plant integration.
* BW Packaging is an international supplier of equipment. The largest in existence, our many subsidiaries are OEM manufacturers of specialty industry leading flagship packaging machines such as can seamers, fillers, labellers, centrifuges, processing lines, full factory integration and monitoring, etc. For the largest food and beverage corporations in the world (Nestle, Anheisuer-Busch, Kraft, Ber, etc). PSA division specializes in fillers and labellers and my role entailed development of all automation and electrical design and engineering for the various product lines.
* Start to Finish involvement – from developing the options needed for the customer’s needed product and plant, developing the electrical design to the specified code (UL, PLd or PLe, etc.), choosing components (PLC, Safety PLC, I/O cards, networking and desired communication protocol, Servodrives and encoder motors, variable frequency drives, motors, soft-starts/overloads, contactors, breakers/relays/fuses, etc. Development of schematics, operator interface, logic programming, testing and debugging, Factory Acceptance Testing, and aftermarket support and service.
* Since my hire, margin on our highest selling product line jumped over 10% from 32% to 47% on $6.5M of product sold under just one line in FY23, an increase which was the highest contributing factor to our record year of revenue in 23. This product line accounted for nearly 65% of our total revenue for this FY.
* Developed a modular design for control boxes which fit all our product line, rather than the previous “build to order” designs for each machine. This allowed us to outsource this new standard design which could be ordered in bulk at a major cost savings, as well as cut assembly labor by 60% further increasing margin. Intangibly, it also allowed us to provide machines when no other companies could as we were now the only ones with safety stock and no longer subject to the longest lead times the industry has ever seen.

October 2021 – March 2022

Columbia Tech Engineering – Senior Staff Electrical Engineer, Power and Controls

* Team Leader of Power and Controls team. Responsible for developing power distribution and analog/digital control solutions for a wide range of commercial/industrial applications, from initial design through final fabrication documentation.
* Responsible for architecture, design, component selection, layout, test and debug.
* Responsible for design integration of PLCs into machine control panels.
* Create electrical system documentation and execute Engineering Change Orders including schematics, block diagrams, enclosure/component layouts, wiring diagrams, wire run lists, cable drawings, and bills of material.
* Provide design/analysis of servo electro-mechanical drives, overall power budget and capacity ratings and compliance with NEC Code.
* Design and debug power distribution systems for a wide range of capital equipment.
* Responsible for PLC logic architecture, implementation, troubleshooting, and test using both Rockwell SLC500 and WAGO processors.
* Capable of designing within compliance initiatives of industry accredited laboratories such as – UL, NFPA, NEC, CSA, FCC, CE, etc.
* Transition of prototype designs into manufacturing.
* Interface with suppliers and customers on designs and specifications as needed.

**November 2009 – January 2022**

***Massachusetts Dept Of Transportation - Senior Project Manager / Drawbridge Control Engineer***

* Managed a team of 15+ employees in a supervisory capacity, responsible for subordinates’ job assignments
* Successfully managed a team dedicated to safe roads and bridges for over twelve years
* Responsible for the oversight of the electrical power and control systems for all drawbridges in Northen Coastal MA area.
* Maintenance, installation, and setup/operation of 480VAC and 600VAC motor systems with associate 120VAC/24VDC control systems.
* Upgraded analog relay control circuits with digitized Allen- Bradley Micrologix PLC and developed programming code using RSLogix500 and HMI interface for operators with FactoryTalk Studio.
* Installation of motors and power supply (load calculation, conductor sizing, conduit design, etc.) up to 100kW and installation and setup of VFD (Eaton) programming.
* Automated manual DC voltage regulators for conveyor belt drive systems, as well as designed and implemented the use of high power servo drives with PLC controls in order to decrease operational failures and associated traffic delays.
* As Resident Engineer (Lead Project Manager), managed multiple bridge construction contracts for state transportation agency.
* Developed innovative construction methods with an emphasis on safety and minimal disruption to traveling public. Led the first modular (off site built) concrete construction of a major interstate bridge replaced with only two weekend long disruptions.
* Acted as head liaison between State Agency and Contractor on multiple $10+M value bridge construction, reconstruction and maintenance projects and lead multi year construction project with value of $130M of state assets.
* Maintain accurate job records and invoices, protect state and taxpayer interests while maximizing use of taxpayer dollars
* Ensure contract compliance, monitor and record construction activity in daily ledger log

**Core Technical Competencies**

**PLCs & Programming Languages** *(including but not limited to)*  
Allen-Bradley Studio/Logix 5000 - ControlLogix, CompactLogix, Panelview HMI  
Ethernet/IP, RS232 (Micrologix 1200), RSLogix500 for Micrologix Controllers

Siemens S7, TIA Portal  
Modbus/RS232

Bosch Rexroth – IndraWorks Engineering (Indrasize, Indraworks programming suite, etc.) EtherCAT, CtrlX Core, CtrlX Converter/Modular Inverter Drives (IndraSize), Safety Controller, XM Motion Controller, Indradrive/CS Platforms, Indramat Drives, CtrtlX Combo Motor/Drive/Cabinet.

CodeSys, Node-RED, Ignition SCADA, Kassow 7-Axis Robots

IEC 61131-3: Ladder Logic, Structured Text, FBD, Python, Javascript, HTML

**HMI & SCADA Systems**  
FactoryTalk View SE/ME  
WinCC, Wonderware InTouch  
Ignition by Inductive Automation

**Electrical Design & Analysis**  
AutoCAD Electrical -Control panel layout & wiring diagrams  
MATLAB - Load calculations & SCCR analysis  
UL508A & NEC/NFPA Compliance, SiL1/2/3 & PLx (a-e) safety/failure analysis

**Networking & Communication Protocols**  
Ethernet/IP, Profinet, Modbus TCP, OPC/UA

**Safety Systems**  
Safety PLCs (AB GuardLogix, Bosch, Beckoff)  
Light curtains, E-Stops, interlocks  
Risk assessment & circuit validation

**Software & Tools**  
MATLAB/Simulink, Python  
MS Project, Jira, Git, MS-Office, Adobe Suite, Windows/Linux

**ATS Keywords -** PLC programming, HMI development, SCADA integration, control system design, electrical schematics, UL508A, NFPA 70E, IEC 61131, automation engineering, industrial networking, safety PLC, Allen-Bradley, Siemens TIA Portal, FactoryTalk, Profinet, Modbus, AutoCAD Electrical, EPLAN.Bosch, Rexroth, Systems Engineering, Controls Engineering, Electrical Engineering, Mechanical Engineering, Python, Javascript, C++, open source, open source automation, ignition, SCADA