

Lorn J. MacIlraviae
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Midlothian, Texas
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PROFESSIONAL SUMMARY

Critical Facility Technician and Master Electrician with a broad portfolio of experience supporting mission-critical infrastructure, including Google hyperscale data centers, oil and gas, and power plants. Currently working as a Facility Technician III (L4) at Google's MDN Data Center, with responsibilities ranging from high and low voltage electrical switching to electrical commissioning (CX), mentoring, and NFPA 70E instruction.

Extensive field expertise in electrical and instrumentation troubleshooting, PLC programming, SCADA systems, and VFD configuration. Background includes leadership roles in electrical project management, control room operations, and technical instruction. Additional experience spans electrical program development, systems integration, and compliance with the National Electrical Code.

Holds an MBA in Management and a strong track record in technical education, having taught electrical apprentices and PLC programming at the college level. Bilingual in English and Spanish, with a consistent commitment to safety, operational excellence, and continuous learning in emerging electrical and control technologies.

WORK HISTORY

Google, LLC - [MDN Data Center](#), September 2020 - Present

Midlothian, Texas

Position: Data Center Operations, Facility Technician III (L4)

- **February 2026**, Moved to the Commissioning (CX) Team to support new buildings and warranty work.
- **April 2025**, Promoted to Facility Technician III (L4) in recognition of cross-disciplinary expertise, training, and leadership
- **August 2024** Returned to Electrical Team to lead commissioning efforts for MDN3A as Electrical CX Lead
- **January 2023 to August 2024**, Mechanical Team: Lead water chemistry program, cooling tower maintenance, and fire/life safety systems
- **September 2020 to January 2022**, Electrical Team: Performed HV/LV switching, maintenance, and complex electrical troubleshooting
- Perform critical facilities maintenance in support of hyperscale data center operations
- Safely execute high- and low-voltage electrical switching as part of the Critical Work Process (CWP) team
- Lead electrical safety training initiatives to reduce shock and arc flash risks, using eHazard's NFPA 70E curriculum, especially focused on onboarding and mentoring new team members
- Coordinate and deliver in-house electrical apprenticeship training based on Mike Holt Enterprises materials, serving as a mentor co-workers

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- Operate the plant during scheduled shifts, ensuring stability and responsiveness across systems

ILL (Jones Lang LaSalle) at CYS Data Center, December 2019 - August 2020

Cheyenne, Wyoming

Position: Electrical Program Manager

- Electrical Planning and Scheduling
- Managed electrical projects involving outside contractors for service and repair
- Provided technical support to my co-workers on UPS, PLCs, and power equipment

Rising Edge Services, LLC, February 2014 - December 2019

Gillette, Wyoming

Position: Owner

- Optimized customer energy production, in the oil and gas industry, by working on automation, VFDs, and PLCs.

GLX Technologies, February 2019 - September 2019

Houston and Pecos, Texas

Position: Master Electrician

- Project Management and Electrical Field Service
- I still work as a part-time contractor for GLX providing electrical training and advice.

Thunder Creek Gas Services, LLC, February 2018 - February 2019

Gillette, Wyoming

Position: I&E Technician

- Worked with a great team of operators, mechanics, and electrical technicians to keep the pipeline operating by troubleshooting and repairing automation, PLCs (Allen Bradley), SCADA (ABB Totalflow), networking, and power equipment

Gillette College, 2008 - May 2019

Gillette, Wyoming

Position: Adjunct Instructor, Part-Time

- Instructed electrical apprentices about the NEC (National Electrical Code), Electrical Theory, Safety, VFDs, and Troubleshooting
- The courses were based on the NCCER program, Mike Holt Electrical Books, and the NEC.
- Taught PLC classes on Allen Bradley Hardware and Software

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Basin Electric Power Cooperative - Dry Fork Station, September 2012 - May 2017

Gillette, Wyoming

Position: Electrical and Instrumentation Technician (E&I Technician)

- Critical Facilities Maintenance
- Ovation DCS, PLCs (Allen Bradley and Siemens), UPS, and VFDs
- Worked on fire alarm systems, pneumatic valves, control valves, lighting, protective relays, and high and low voltage breakers
- Trained coworkers on NFPA 70E standards and electrical safety

Weatherford International, Ltd., April 2010 - September 2012

Gillette, Wyoming

Position: Electrical Manager and Technical Sales

- Managed regional team of 12 electrical employees in Colorado, North Dakota, and Wyoming
- Sold oilfield controls, variable speed drives, and pumping equipment
- Provided sales and technical support for the Production Optimization product line
- Served as the Master of Record for Weatherford in Wyoming and North Dakota
- Planned and installed electrical projects. Designed electrical installations, created accurate diagrams, and programmed PLCs for water injection plants
- Worked on reciprocating rod lift, hydraulic lift, gas lift, submersible pumps and motors, progressive cavity pumps, variable speed drives (VSD, VFD), polymer injection facilities, and flow measurement equipment

Luca Technologies, Inc., November 2008 - February 2010

Gillette, Wyoming

Position: Field Operations Project Lead

- Supervised electrical and gas measurement contractors
- Maintained and installed electrical equipment
- Worked on well restoration systems in Wyoming and Utah including, water injection pumps, chemical pumps, flow controls, water and gas flow measurement, and power distribution systems

Petro-Canada Resources (USA) Inc., September 2004 - November 2008

Gillette, Wyoming

Position: Electrical Manager

- Managed electrical and gas measurement contractors working on new projects and 1200 existing oil and gas wells.
- Led the integration of multiple new and legacy oil and gas fields into one ABB Totalflow SCADA system
- Designed and supervised the installation of safe Class 1, Div. 1 & 2, power and control panels for oil and CBM wells
- Worked with the local electric cooperative to obtain electrical power for projects

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- Laid out and supervised the installation, modification, and commissioning of power distribution systems in new and producing fields (480 V to 25 KV underground systems)
- Troubleshooting electrical and instrumentation problems in the field using DMMs, Meggers (Insulation Testing), time domain reflectometers (TDRs), pressure gauges, flow meters, temperature meters, utility locators, and spectrum analyzers
- Witnessed the calibrations of sales meters and gas chromatographs
- Programmed Siemens and Allen Bradley PLCs, Totalflow meters, and other power, liquid, and gas measurement devices
- Worked on equipment at LACT units, lift stations, weather monitoring sites, compressor stations, and telemetry systems
- Began and completed an online MBA in Management at the University of Mary while working full time

The Missing Years:

The years between 1997 and 2004 were spent working for two electrical contractors, learning the electrical trade, in Wyoming and Colorado. I passed my Journeyman Electrician test in Wyoming in 2001. Prior to 1997, I spent time working as a pastry cook in Santa Fe, New Mexico and at resorts in Vail and Aspen, Colorado. There were periods of interesting travel too.

LICENSES

- Master Electrician: CO, MT, NM, TX, and WY

EDUCATION

University of Mary, Bismarck, North Dakota, [MBA in Management](#)
Gillette College, Gillette, Wyoming, [Electrical Apprenticeship Classes](#)
St. Olaf College, Northfield, Minnesota, [BA in History](#)
Shattuck-St. Mary's School, Faribault, Minnesota, [Diploma, High School](#)

PERSONAL DEVELOPMENT

AVO Training Institute

Protective Relay Maintenance Basic course, Dallas, Texas, January 2025
Circuit Breaker Maintenance, Low Voltage, Norristown, Pennsylvania, December 2015
Microprocessor-Based Relay Testing (Industrial), Dallas, Texas, October 2015

Cody Hot Line School

Certificate of Completion, 2002

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Colorado Experiment Engineering Station Inc. (CEESI)

Advanced Natural Gas Measurement Training Course, Estes Park, CO, July 2008

Fundamentals of Natural Gas Measurement Training Course, Estes Park, CO, July 2008

Control MicroSystems (ScadaPack)

TelePACE, RealFLO, and Hardware Training, Denver, CO, December 2010

Coursera

- [Google People Management Essentials Certificate, 12-7-2025](#)
- [Google AI Essentials Certificate, 7-1-25](#)
- [Google Project Management Certificate, 6-27-25](#)
- [Google IT Support Certificate, 4-15-24](#)
- [Linux Fundamentals, 4-1-2024](#)
- [Hands-on Introduction to Linux Commands and Shell Scripting, 3-27-24](#)

Cybrary

- [Cybrary CompTIA Network+ Course, 6-6-24](#)

Danfoss

VLT® Service Partner Certification Course, Loves Park, Illinois, August 2017

e-Hazard NFPA 70e Courses

- Google High Voltage Qualified, 2025
- Train the Trainer Alumni-Low High Voltage UPDATES, 2020
- Train the Trainer Course for Low and High Voltage, 2013
- High Voltage Qualified, 2013
- Low Voltage Qualified, 2013

ea Technology

Partial Discharge and UltraTEV Plus2 Level I Training Course, 2022, 2025

Emerson Controls

(Ovation DCS) OVS-215-WIN, Pittsburgh, PA, January 2013

Jade Learning

- TX Texas Electrical Master the 2023 NEC, 4 Hrs, 2-14-25
- CO 2020 NEC System Grounding and Bonding, 7-13-23
- CO 2023 NEC Changes Part 2, 7-9-23
- CO 2023 NEC Changes Part 1, 6-14-23
- CO Electrical Safety (NFPA 70E 2021), 5-6-23

Mike Holt

- [Mike Holt's Certified Instructor Program, 2-14-2025](#)
- [2023 Bonding and Grounding Review Online, 8 Hrs, 11-11-2024](#)
- [Analysis of Significant Code Changes in the 2023 NEC, 16 Hrs, 6-19-2024](#)

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PLC Courses

Allen Bradley RSLogix 5000, Siemens SIMATIC S7, and ScadaPack

Safety Courses:

[OSHA 30. Construction](#)

[American Heart Association, Heartsaver, First Aid, CPR, AED Certificate](#)

PEC Card - Basic Orientation, SafeLand Orientation

ISNetworld Card

Teledyne Monitor Labs

CEMS, Emissions Monitors, Gillette, Wyoming, May 201

Trane

Tracer Summit Advanced Operation Course, Gillette, Wyoming, May 2014

Schneider Electric

Schneider PowerSCADA Operation Course (PSO), Franklin, TN, November 18th to 21st, 2024

Udemy

- The Complete Course in Water and Wastewater Treatment, 8-24-23
- Fire alarm system with NFPA codes: Latest 2023, 8-27-2023
- Water Treatments of Cooling Systems, 9-17-2023
- Electrónica Básica, 10-31-23
- Ultimate Electrical Power Protection, Control & Switchgear, 12-2-2023

Weatherford International, Ltd.

Supervisory Development Program, Denver, CO, August, 2010

Human Resources for the Non-HR Manager, Denver, CO, October 2011

Yaskawa America, Inc.

Hands-On Troubleshooting for AC Drives, Waukegan, IL, September 2010

SKILLS

- Electrical Controls and Automation: PLCs (Allen Bradley, Siemens, ScadaPack), VFDs, SCADA (ABB Totalflow), DCS (Ovation).
- Project Management: Planning, scheduling, execution, and oversight of electrical and infrastructure projects.
- Facilities Operations: Critical infrastructure maintenance, high and low voltage electrical switching, power distribution, cooling systems (cooling towers, water chemistry), fire life & safety.
- Safety & Compliance: NFPA 70E, National Electrical Code (NFPA 70), safety training and program development.
- Troubleshooting: electrical, instrumentation, and control systems.

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- Leadership & Team Management: Mentoring, instruction, team coordination, contractor management.
- Technical Sales & Support: Product line support, client relations.
- Programming & Scripting: JavaScript, HTML, Python, PLC Logic.
- OS/Systems: Linux, Computer Networking, System Administration.

OTHER ACCOMPLISHMENTS

- I built my own website, www.lornmac.com, with accurate formulas, calculations, and examples to help my students and fellow electricians.