RICHARD LOURETTE

Director of Embedded Systems | Technical Leadership | Strategic Innovation

✉ rlourette@gmail.com | 585.953.5309 | Fairport, New York | Remote Ready

EXECUTIVE SUMMARY

Visionary embedded systems leader with 30+ years of experience and proven track record leading cross-functional engineering teams from concept to production. Expert at defining technical roadmaps, scaling embedded teams, and delivering mission-critical systems across IoT, aerospace, and consumer electronics. Known for hands-on technical leadership that balances strategic vision with deep technical expertise, driving continuous improvement in performance, scalability, and product stability.

Leadership Impact:

- Led 13+ engineers across firmware, hardware, QA, and RF engineering disciplines
- Won $50M+ aerospace contract through strategic technical presentation to executive stakeholders
- Transformed testing processes from weeks of manual AdHoc testing to days through automation and formalized test plans and tests
- Established Agile/Scrum methodologies for embedded development teams
- Successfully recruited and mentored engineering talent across multiple technical domains

PROFESSIONAL EXPERIENCE

RL TECH SOLUTIONS LLC | Rochester, NY

President & CTO | Technical Leadership Consultant (Oct 2022 - Present)

Providing strategic technical leadership and embedded systems expertise to high-growth technology companies while maintaining hands-on technical involvement.

Strategic Achievements:

- Delivered 150,000+ lines of production C++ code for next-generation embedded platforms
- Established embedded development best practices and CI/CD pipelines
- Led globally distributed teams across Australia, California, and Italy on complex system integration
- Mentored engineering teams on modern C++ and embedded Linux development

D3 Engineering - Subcontractor to L3Harris (2022 - 2023)

- **Business Development:** Won $50M+ contract through 7-hour technical presentation (275 charts)
- **Team Management:** Directed FPGA design and embedded firmware teams
- **Architecture Design:** Created distributed spacecraft payload systems integrating radiation-hardened MCUs

PANASONIC CORPORATION

Engineering Group Manager - Industrial IoT Division (Feb 2021 - Oct 2022)

Led cross-functional teams developing connected IoT platforms, managing firmware engineers, RF engineer, QA team, electrical designer, and mechanical/manufacturing engineer while interfacing with global subcontractors.

Leadership & Strategic Accomplishments:

- **Team Leadership:** Managed diverse engineering team delivering industrial IoT gateway products
- **Process Transformation:** Authorized and implemented Agile/Scrum for embedded development
- **Tool Implementation:** Directed adoption of Jira and Zephyr for project management
- **Quality Improvement:** Led testing automation initiative reducing test cycles from weeks to days
- **Technical Roadmap:** Defined embedded systems strategy for next-generation IoT products
- **Resource Planning:** Created staffing plans and recruited engineering talent
- **Cross-functional Collaboration:** Coordinated with product management, sales, and marketing teams

Technical Initiatives:

- Architected scalable IoT gateway platform supporting BLE, Wi-Fi, and HaLow protocols
- Established wireless connectivity standards across product lines
- Drove continuous improvement in power efficiency and system performance

TOKENIZE INC. / CASE WALLET | New York, NY

VP Engineering - Wearable Technology (Sep 2015 - Feb 2021)

Led engineering teams developing ultra-low-power embedded systems for biometric wearable devices, presenting to board members and venture capitalists for funding rounds.

Executive Leadership:

- **Stakeholder Management:** Presented technical strategy to board members and VCs
- **Team Development:** Built and led firmware engineering teams
- **Strategic Planning:** Advised executive team through next-round funding
- **Technical Direction:** Guided development of power-efficient embedded systems
- **Quality Standards:** Led PCI-compliant certification using FIME certification process

L3HARRIS CORPORATION | Rochester, NY

Principal Investigator / Chief Scientist (May 2002 - Sep 2015)

Led research initiatives and technology development teams while maintaining hands-on technical involvement in spacecraft payload processor development.

Strategic Leadership:

- **Technical Roadmap:** Led technical roadmap development for Aerospace IRAD projects
- **Innovation Leadership:** Led development of distributed satellite processing architecture
- **Research Direction:** Directed advanced technology development initiatives
- **Mentorship:** Developed junior engineers' technical and professional skills

EASTMAN KODAK COMPANY | Rochester, NY

Chief Firmware Architect (1995 - 2002)

Led international firmware development teams creating embedded systems for consumer electronics and imaging devices.

Global Team Leadership:

- **International Collaboration:** Managed firmware teams across multiple countries
- **Cross-company Partnerships:** Interfaced with Gretag, Noritsu, and Kodak Research Labs

- **Framework Development:** Created object-oriented software framework for digital cameras
- **Product Strategy:** Supported multiple product lines from single architecture

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LEADERSHIP PHILOSOPHY

"I believe technical leaders must be able to work through problems at any level to effectively guide their teams and make data-driven decisions. I challenge my staff but won't let them fail - when team members encounter complex challenges, I guide them with questions that help them discover solutions while building their technical confidence."

This hands-on approach has consistently helped me build high-performing teams that value both technical excellence and collaborative problem-solving.

TECHNICAL EXPERTISE

Programming & Development

- **Languages:** C/C++ (30+ years), Python, Assembly
- **Methodologies:** Agile/Scrum, CI/CD, Test-Driven Development
- **Tools:** Git, Jira, Zephyr, CMake, Yocto

Embedded Systems & Platforms

- **Operating Systems:** Embedded RT Linux, FreeRTOS, RTEMs, Nucleus RTOS
- **Processors:** ARM Cortex-M/A, TI MSP430, STM32
- **Protocols:** BLE, Wi-Fi, Ethernet, NFC, MQTT, CoAP

Leadership & Management

- **Team Building:** Recruiting, mentoring, performance management
- **Strategic Planning:** Technical roadmaps, resource allocation
- **Process Improvement:** Agile transformation, automation initiatives
- **Stakeholder Management:** Executive presentations, board reporting

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KEY ACHIEVEMENTS

Strategic Business Impact

- Won $50M+ aerospace contract through technical leadership and strategic presentation
- Advised startup through successful funding rounds as VP Engineering
- Created technical roadmaps aligning embedded systems strategy with business goals

Team Development & Process

- Built and scaled engineering teams across multiple disciplines
- Transformed manual testing to automated frameworks (weeks to days)
- Implemented Agile/Scrum methodologies for embedded development
- Established development standards reducing time-to-market by 60%

Global Collaboration

- Collaborated with distributed teams across multiple continents in recent consulting engagements:
  - Coordinated with Australia-based Real-Time Linux board support team
  - Interfaced with hardware teams in Livermore, California
  - Collaborated with IMU specialists in Italy
- Managed international firmware teams at Kodak
- Coordinated with global contract manufacturers and suppliers

Technical Innovation

- Architected distributed satellite payload processing systems (NASA CFS)
- Created heterogeneous CPU/FPGA architectures for aerospace platforms
- Developed object-oriented framework supporting entire product line

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PROFESSIONAL DEVELOPMENT

Patents & Publications

- 20+ US Patents in embedded systems and signal processing
- Published technical articles on modern C++ for embedded systems
- "Eliminating Dynamic Memory in Embedded Protocols with C++26 Static Reflection"
- "Functional Safety Standards Hierarchy for ProfiSafe Implementation"

Industry Engagement

- Technical thought leader with active GitHub repository of articles
- Contributor to embedded systems community best practices
- Speaker on modern embedded development techniques

EDUCATION

Bachelor of Science in Electrical Engineering
University of Dayton | Dayton, Ohio

SECURITY CLEARANCE

Previously held DoD Top Secret clearance with SSBI for SCI access (available for reinstatement)