

DAVID ESSI

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INDEPENDENT IOT PRODUCT DEVELOPER / MANAGER

Enthusiastic, analytical leader that promotes teamwork and builds consensus on established goals.

Versatile electrical engineer with extensive software experience leading teams developing embedded system control and remote monitoring applications. Skilled in all facets of product development life cycle from requirements analysis, design, coding and testing to manufacturing. Excellent problem-solving skills with proven success building consensus among stakeholders by communicating technical information to non-technical audiences.

Areas of Expertise include:

- **IoT Software Development**
- **Hardware Development**
- **Project Management**
- **Communication / Writing**
- **Vendor Negotiations**
- **Intellectual Property**

PROFESSIONAL EXPERIENCE

LABRA Technology, LLC, Delray Beach, FL <https://www.labratechnology.com/> **2017 – present**
Founder, *IoT Cloud Solution Framework for Gauging and Tracking Lead-Acid Battery Capacity in Storage Applications*

- Funded, specified, tested hardware and portal updates re: [GPS-Voltmeter](#) that tracks [battery reserve status](#).
- Presented Battcon Conference [paper](#) to support technology premise using data acquired from prototype.

UNIPOWER, LLC, Coral Springs, FL **2015 – 2017**
\$200M global manufacturer and chargers and DC power systems

Engineering Director, Controls and Software Development

Provided hardware and firmware leadership to small distributed design staff of newly formed business mashup.

- Within first month, socialized NG controller strategy suitable to replace three legacy product lines.
- Led cross-functional team effort to define Standard Operating Procedure for new ECO Process.
- Proposed novel IoT offering based on ThingWorx and led effort to develop prototype.

EMERSON NETWORK POWER, Lorain, OH **2011 – 2015**
\$700M global manufacturer and installer of telecom power systems and outside plant infrastructure products.

Principal Engineer / Control Systems Architect

Served on newly formed team chartered to introduce NG technology such as PLCopen.

- Envisioned 4 NG architectures, allowing retrofitting of DC plants having disparate CAN sub-system.
- Specified, tested and managed 4 firmware releases modernizing web UI for 20-year old legacy controller.

CISCO SYSTEMS, Wireless Business Unit, Richfield, OH **2010 – 2011**
\$1.4B global manufacturer of enterprise-class wireless access points.

Engineering Manager, Platform Software Development

Directed 8 Software Engineers porting and sustaining production BL and IOS images for all access points. Daily prioritization per customer-found defects and blockers in risk-laden, aggressive (50% confidence) schedule.

- Achieved on-time bring up of PPC motherboard by shifting tasks despite critical bug in new silicon
- Renegotiated entrance criteria with Test team and crashed unit test effort, remaining on schedule.
- Created MS-Project custom views, saving time and simplifying analysis of project's critical path.

EMERSON NETWORK POWER, Lorain, OH

2004 – 2010

*\$700M global manufacturer and installer of telecom power systems and outside plant infrastructure products.***Engineering Manager**, Controls and Software Development

Transitioned role of NA design staff into Regional Configuration team to integrate global building blocks. Served as Technical Chair and Emcee for Annual Customer Conference for 7 years.

- Drove product roadmap strategy by performing gap analysis between global and NA requirements.
- Underwent CMMI assessment by Software Center of Excellence, achieving favorable assessment.
- Enhanced legacy products with 25 software releases on 5 product lines in 2 years.

MARCONI COMMUNICATIONS, (acquired by Emerson), Lorain, OH

1998 – 2004

*\$200M North American manufacturer of telecom power systems and outside plant infrastructure products.***Manager / Consulting Engineer**, Controls and Software Development

2001 – 2004

Program Manager for 500 KW DC multi-bay power system with CAN control system and advanced controller design based upon 528x ColdFire and MQX RTOS.

- Applied 2-stage RFP / RFQ approach with 11 CPU vendors, leading to selection of final vendor.
- Socialized value of patent and negotiated IP licensing, resulting in first-ever battery fuel gauge feature.

Director, Product Management – Monitoring and Controls

2000 – 2001

Responded to RFPs and RFQs from telecommunications firms such as AT&T, Sprint and Verizon.

- Championed recall effort for product with faulty memory that could cause power system shutdowns.
- Envisioned streamline effort for engineering by moving controller and monitor to common platform.

Engineering Director, Controls and Technology Development

1998 – 2000

Directed 25 Mechanical, Electrical and Software Engineers while outsourcing Windows development. Program Manager for advanced 3-phase rectifier research and development project at Rensselaer Polytechnic Institute.

- Conceived product adaptation for distributed "Battery Monitoring System," (US Patent 6,498,491) offering high-precision float current sensors for array of battery plants.
- Secured \$1.5M SNMP monitoring project with Metricom using 1-page proposal.

EDUCATION & PROFESSIONAL DEVELOPMENT

Bachelor of Science (BS), Electrical Eng. and Applied Physics, Case Western Reserve University, Cleveland, OH

– Minor: Economics; Honors 4 semesters; Co-op with Reliance Electric (emphasis on PLC)

Continuing Education:

- MBA PowerPak (affiliated with Northeastern University), Technical Project Management (AMA)
- Requirements Engineering and OO Software Design, Washington University, St. Louis, MO
- Emerson Corporate Certified Communicative Manager Training
- 11-year member, Toastmasters Speaking Club
- Certified Lean Six Sigma White Belt training

TECHNICAL SKILLS

Software Development:

- Encoded Battery Reserve Algorithm in AWS Lambda Function as URL Endpoint
- Experience in RTOS, C++ and Object-Oriented Design (patterns) and UML Notation
- Experience with CMM / ISO / TL Quality Standards; familiar with Lean practices such as ICONIX
- Proficient with Sparx Enterprise Architect CASE Tool for Requirements Capture, including Wireframes
- Customization of MS-Project views, buttons and toolbars using Visual Basic and macros