

Marvin Hancock

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Summary

Electrical Engineer with 20 years of experience designing and delivering complex electrical and electronic systems with extensive experience in every stage of a project life cycle. Proven development and test ability with specialty in LabVIEW and embedded systems. Passionate about product Quality and Compliance. Broad skillset with proven ability to rapidly adapt to project requirements and provide innovative solutions.

Skills

Electronics

PCB Design, System Architecture, Troubleshooting, Verification, Validation, Regulatory Compliance, Embedded Systems

System Architecture

Control System Design, Requirements Definition and Documentation, State Diagrams, Distributed I/O

Management

Team Staffing, Employee Mentoring, Resource Management, New Technology Integration, Project Planning, Prioritization / Scheduling

Software Development

Embedded Software, LabVIEW, LabVIEW Real-Time, LabVIEW FPGA, C, C#, C++, Lua, Python, Ladder Logic, MATLAB, NI Vision

Regulatory Compliance

UL, CE, DNV 2.7-1, DNV 2.7-2, ISO 9000, FDA GMP, ATEX, NFPA 70

Work Experience

Quality Assurance Engineer (contract) – Philips ECR – Bothell, WA – May 2016 to March 2017.

- Responsible for authoring, reviewing and releasing Engineering Changes to support APQP project.
- Participates in DFMEA's to establish key-to-quality characteristics.
- Responsible for verifying vendors control plans and practices are adequate to cover requirements.
- Active in performing effectiveness checks of corrective actions taken to close CAPAs.

Water Tectonics – Everett, WA – 2007 to 2015

PRINCIPLE ENGINEER – 2 years

ENGINEERING MANAGER – 3 years

SENIOR DESIGN ENGINEER – 3 years

- Responsible for system development through all phases: requirements gathering, architecture, process design, software development, hazard analysis, implementation, testing, documentation, user training, and maintenance.
- Led software development team, developed software, and ensured final quality of systems.
- Led engineering organization to support growth from \$5M to \$30M revenue.
- Led design team in design and delivery of large scale water treatment systems. Each system was custom and met unique customer and regulatory requirement such as DNV 2.7-1, DNV 2.7-2, ATEX, UL, CSA, NFPA 70. Projects ranged from \$1K to \$10M and from 5 gpm to 1100 gpm.
- Created, deployed, and maintained embedded controls, user interfaces, remote monitoring, and automated email alert system, in LabVIEW, on the Compact Field Point (cFP) platform.
- Designed and built custom sensors, PCBAs, and test fixtures.
- Developed, executed and reported on manufacturing and final acceptance tests.

LEAD TEST ENGINEER – Airbiquity – Seattle, WA – 2006 – 2007

- Responsible for verification/validation and development testing for in-band cellular modem used in automotive telematics applications.
- Responsible for creation and execution of test plans, procedures, methodologies, and reporting to verify correct and reliable implementation of modem software currently deployed in over 5 million vehicles.
- Implemented and maintained test suite in LabVIEW. Designed and implemented new text-based scripted test tool combining power of LabVIEW with ease of Lua scripting language. New tool provided all programmers and testers with the ability to write their own tests.

SOFTWARE QUALITY ENGINEER – Therus Corporation – Seattle, WA – 2005 – 2006

- Generated, maintained, and executed verification/validation plans, test procedures, and reports for a High Intensity Focused Ultrasound (HIFU) device.
- Created automated script-based test software (using LabVIEW) to provide additional repeatability and test reusability, greatly reducing testing time requirements.

ELECTRONIC SYSTEMS ENGINEER – PACCAR, INC. – Mount Vernon, WA – 2004 – 2005

- Budgeted, planned, and executed of complex test plans for multiple electronic products based on statistical modeling of failure and desired quality and reliability.
- Designed, assembled, and implemented a hardware-in-the-loop (HIL) test platform. Created multiple automated LabVIEW-based tests including hardware (PCB and custom mechanical), software, test plan, execution, and data analysis.
- Used NI Vision software to automate system response testing.

Plexus Corp. (formerly SeaMED Corporation) – Bothell, WA – 1996 TO 2002

QUALITY ENGINEER – 3 years

SOFTWARE VALIDATION TECHNICIAN – 1 year

MANUFACTURING TECHNICIAN – 2 years

- Software quality engineer for many different products of all levels of concern and all stages of life cycle including initial conception, new product introduction, and sustaining.
- Responsible for generation, maintenance and execution of verification/validation plans, test procedures and reports. Participated in hazard analysis and design reviews.
- Responsible for quality of high volume commercial production including UL compliance, accuracy testing and design verification.
- Heavily involved in the implementation, verification, and validation online signature and documentation system.
- Instrumental in the prototyping, troubleshooting, and repair of many different microprocessor-based systems guaranteed to FDA, ISO 9000, and GMP compliance.
- Traveled extensively and interacted directly with the customer in support of Level III life support system for demonstration and animal testing purposes.

SUBMARINE REACTOR OPERATOR – United States Navy – Pearl Harbor, HI – 1990 – 1996

Education

- Certified LabVIEW Developer, 2016
- BS in Electrical Engineering, Seattle Pacific University, 2003
- Engineer-In-Training Certification, 2002
- Electronics Technician Maintenance Supervisor School. US Navy, 1994
- Quality Assurance Inspector, US Navy, 1994
- Naval Nuclear Power Training, US Navy, 1990 – 1992

Patents

- **Electrocoagulation Treatment Process** (9/2013) US Pat. Number: 8,540,863
- **Method for Using Electrocoagulation in Hydraulic Fracturing** (9/2013) US Pat. Number: 8,997,863