

JONATHON SCHRADER

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1440 Quincy Bridge Court ~ Bartlett, Illinois 60103-1811

Electrical Systems Engineer with 20+ years of design, development and management experience. Extensive experience with microprocessor hardware design, functional code development, implementation and integration of systems and subsystems; from verification and validation through production and field service. Experience with leading multi-disciplinary and multi-cultural engineering teams on large-scale projects in a fast-paced environment.

SELECTED PROFESSIONAL ACCOMPLISHMENTS

- Architect of Navistar's Common Architecture 2 electrical platform, including architectural design and development as well as management of processes of other design groups.
- Developed and constructed the first commercially available 24 volt electrical system for Navistar vehicles.
- Designed and wrote a test program to accomplish a 97% reduction in time to failure for a drained-battery issue in an automotive module, allowing for a quicker debug process; resulted in a two million dollar savings to the company, increased customer satisfaction, and program adoption by other departments.
- Quickly designed, implemented and executed an automated sorting process used to identify defective units upon the discovery of faulty modules in the customer's assembly line. This process resulted in the ability to maintain production and in a five million dollar cost avoidance to the company and the customer.

PROFESSIONAL EXPERIENCE

NAVISTAR, Lisle, IL

2011-Present

Electrical Vehicle Systems Integrator (2011-Present)

- Developed and documented corporate-wide electrical standards.
- Coordinated the development, testing, and production ramp up of two new vehicle architectures; an export bus application and a global common vehicle architecture.
- Reviewed and approved new and updated electrical component specifications for compatibility with vehicle architectures, as well as adherence to corporate and industry standards.
- Mentored junior engineers on system, electrical and software design concepts.
- Led electrical systems integration for several different development programs across Navistar's entire portfolio of medium and heavy duty tractor, truck and bus products.
- Oversaw validation and production verification processes, including onsite factory build support in Brazil.
- Led design reviews for several different vehicle platforms' wiring implementations.
- Served on Navistar's HMI Component Symbol Committee, setting design direction for all vehicles.
- Served as Navistar's representative to the S.12 (Vehicle Electronics) study group of the Technology and Maintenance Council of the American Trucking Association.
- Performed design and layout of PCBs for distributed vehicle architecture modules.

CONTINENTAL, Deer Park, IL

2004-2011

Senior Staff Test Systems Engineer (2007-2011)

- Designed and developed an in-house automated test system for automotive modules.
- Designed and constructed components for the test system, including simulator boxes and PCBs.
- Developed driver software and application code for engineer and end-user interface to the test system.
- Documented automated test system design and in-house custom software applications.
- Quickly constructed test apparatus for troubleshooting and repairing customer complaints.
- Developed embedded firmware and custom computer interface software for PIC microcontrollers as customized test apparatus for module development and testing.
- Coordinated the construction and configuration of test systems purchased by design teams.

PROFESSIONAL EXPERIENCE (CONTINUED)**CONTINENTAL (CONTINUED)****Senior Program Engineer (2004-2007)**

- Acted as the lead design engineer for an occupant classification system, including software and hardware oversight, test management and support and production launch management.
- Acted as an interface between the design engineering team and the end customer, including design meetings and onsite support during production issues.
- Launched products in multiple international manufacturing locations, including Mexico and China.
- Guided a design program through TS-16949 new product development and launch requirements, by leading module design activities, validation testing, and production facility interface.
- Developed test software and systems to enable Design and Production testing, including CANalyzer CAPL scripting, Microsoft Office macros and custom application development.

Additional professional experience as a **PC Technician Assistant**, **PC Technician** and **Adjunct Faculty Member** with **SOUTHWESTERN MICHIGAN COLLEGE (1994-1999)**, as well as an **Electrical Engineer**, **Software Engineer** and **Systems Engineer** with **MOTOROLA (1999-2004)**.

PROFESSIONAL ASSOCIATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS	2007-Present
TECHNOLOGY AND MAINTENANCE COUNCIL, AMERICAN TRUCKING ASSOCIATION	2014-Present

TECHNICAL SKILLS**ENGINEERING PROCESSES**

- Electronic Circuit Design, Simulation, Analysis and Debug
- Printed Circuit Board Design and Construction
- Embedded Firmware Development and Coding
- Application Software Development and Coding
- New Product Launch Process Support and Leadership
- Failure Modes and Effects Analysis
- Fishbone and Pareto Analysis

SOFTWARE PACKAGES

- Microsoft Windows, Office, Visio and Project
- Vector CANTech CANalyzer, CANape and CANoe
- Microchip MPLAB PIC Development
- gEDA Open Source Electrical Design Tools
- CVS, Subversion and ClearCase Version Control Tools
- ClearQuest, Trac and Custom-Designed Defect/Task Tracking Tools
- MySQL Database Server

PROGRAMMING LANGUAGES AND ENVIRONMENTS

- National Instruments TestStand, LabVIEW and LabWindows/CVI
- Microsoft Visual Studio .NET (Visual Basic, C# and C++) and Visual Basic for Applications
- Embedded C/C++ on Bare Microcontrollers or Operating Systems
- Assembly Language, Batch Programming, HTML

EDUCATION, TRAINING, CERTIFICATIONS

WESTERN MICHIGAN UNIVERSITY, Bachelor of Science in Engineering (Computer Systems)	1999
NATIONAL INSTRUMENTS, Certified TestStand Developer	2009-2011