Joseph Eiermann

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Objective

Full time position on afternoon/evening/night shift that allows me to expand my knowledge of manufacturing automation and electrical engineering while continuing my studies at Virginia Tech

Education

BS Electrical Engineering, Expected December 2010 or June 2011
Virginia Tech, Blacksburg, VA

- Dean's List with Distinction, Spring 2008
- Overall GPA: 3.96

Completed course work:

- Engineering Problem Solving with C++: Worked with a partner to develop a console game using objects and subroutines.
- Circuit Analysis: Introduction to circuit analysis tools (Kirchhoff's laws, etc.).
- Intro to Computer Engineering: Digital logic and microprocessor architecture. Used LogicWorks to simulate logic circuits and MPLab to write and simulate assembly language programs for the MicroChip family of MCUs. These projects included formal reports.
- Signals and Systems: Fourier and LaPlace analysis.
- Technical Writing: Created a variety of professional documents, culminating with a mock magazine article on wind power.
- Electronics I: P-N Junctions, basic MOSFET and BJT biasing and logic circuits.
- Electromagnetic Fields: Transmission line theory and intro to Maxwell's equations (static).

BS Marine Engineering Systems, June 1997
US Merchant Marine Academy; Kings Point, NY
Capstone project: worked in a group to complete and present the basic design of a shipboard electrical distribution system.

Software Experience

MS Office products including OneNote, Word/Excel/PowerPoint/Visio 2003/2007
MS Visual Studio 2008 (C++ console programming for class) and VB 6 (general Windows and DB programming)
Development software for automation products listed below
AutoCAD LT (primarily for electrical schematics)
AutoDesk Inventor (for class)

Professional Experience

April 2005 - Present: **Automation Specialist**
TMD Friction, inc., Dublin, VA
Programming and integrating automation systems (new systems):

- PLCs: Allen Bradley SLC/Micrologix, Automation Direct/Koyo
- HMI/SCADA: Allen Bradley PanelView, AVG EZ-Touch, C-More, WonderWare
- Vision Systems: Banner
- Variable Frequency Drives: Allen Bradley SSD, Automation Direct GS Series

Maintaining and troubleshooting existing automation systems, including program upgrades. Includes the above systems and the following:

- PLCs: Siemens S7, General Electric Fanuc (LM90
- HMI/SCADA: Siemens ProTool, WinCC
- Vision Systems: Cognex/ProInspect
- Variable Frequency/Servo Drives: Siemens MicroMaster series, Lenze L-force

Writing work instructions and training other maintenance and production employees
Lead electrical/electronic troubleshooter on all machinery during off shift
Using AutoCAD LT to create/update electrical schematics of control systems

May 2003 – April 2005: **Maintenance Technician**

Federal Mogul, Orangeburg, SC

Performed set-up and electrical/mechanical maintenance and repair of PLC controlled brake pad manufacturing equipment, including material feed systems, unit molding hydraulic presses, cure ovens, thickness grinders, powder paint systems, brake pad scorchers, and automated finishing lines.

May 2002 - April 2003: **Operations Engineer**

ENSCO Marine Co., Broussard, LA

Researched Manufacturer's recommended maintenance practices.

Created/updated/maintained preventive maintenance procedures.

Monitored function of automated maintenance system

Researched regulatory changes by US Coast Guard, EPA, and IMO for Emissions and Vessel Security requirements

Assisted Manager-Engineering in maintenance and validation of technical information on fleet of 27 Offshore Service Vessels (OSVs).

Began evaluation of alternative software systems for ship-to-shore communications and data management.

January 1998 - May 2002: **Marine Electrician**

ENSCO Marine Co., Broussard, LA

Performed maintenance/repair work on OSV with diesel electric propulsion, including:

- EMD gensets (Electro-Motive Division of General Motors)
- Ross Hill SCR systems
- various motor starters (including wye-delta, autotransformer, and SCR soft-start)
- General Electric Fanuc PLCs

Ran and landed main power cables

Connected shore power cables during shipyard periods

Troubleshot and replaced electric motors from fractional to 75HP as required.

Stood engineering watch 12 hours a day, performing operational duties as required.

June 1997 - January 1998: **Assistant Engineer**

ENSCO Marine Co., Broussard, LA

Assisted chief engineer with watch and operational duties on several OSVs. Stood engineering watch 12 hours a day, performing operational duties as required.

Licenses/Certificates

USCG: Chief Engineer (Limited-Near Coastal) of Motor Vessels of any Horsepower; Third Assistant Engineer of Steam or Motor Vessels of any Horsepower; Designated Duty Engineer of Motor Vessels of any Horsepower with current STCW 1995

EPA: Universal Technician

Military

1997-2008: Served in the US Naval Reserve - Merchant Marine Reserve. Achieved rank of Lieutenant

Volunteer Work

Currently serving as property committee chair at Our Saviour Lutheran Church, Christiansburg, VA.

Organizations

Society of Naval Architects and Marine Engineers (SNAME), 1997-2007

Current student member of Institute of Electrical and Electronic Engineers (IEEE)