Eric Moser

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Location: Germantown, WI

Objective

A full time position in which I can learn and advance my knowledge in the field of Electrical Engineering control system firmware design, development and testing.

Summary of Experience

- **Embedded development experience** – with the use of C, C++ and Python
- **Training in embedded C and VHDL Languages** – through multiple course while at MSOE
- **Strong analyst skills** – including reading C and C++ code to develop test cases and increase code coverage
- **Excellent communication skills** – 4+ years working directly with development engineers
- **Agile Experience** – participated in formal Agile based development as a firmware engineer team member at Rockwell
- **Testing Experience** – including functional, unit and smoke testing of developed real time systems and code
- **Defect Documentation** – to allow fellow engineers to reproduce, identify and correct for ongoing development
- **DC and AC circuit analysis skills** – through undergraduate EE courses at MSOE

Education

Milwaukee School Of Engineering (MSOE), Milwaukee WI Feb. 2015
Bachelors of Science in Electrical Engineering

School Projects

- Hybrid Riding Lawnmower with Push Button Start – Sept 2013 to May 2014
  - Wrote embedded real time control system in C to control voltage driven throttle adjustment and relay control
- Autonomous Maze-solving Robot (Competition) – Dec 2011 to Feb 2012
  - Created a robot that could follow a black line, make decisions at forks in the road and detect obstacles (written in C)

Employment History

Magnetek – Menomonee Falls, WI
Software Engineer Jan 2018
Product Team: Material Handling: AC and DC drives developed for motion control of Industrial Crane and Magnet applications.

- Design – Developed a descriptive technical specification of the next generation Industrial DC Magnet Controller as well as a specification for the addition of Ethernet/IP protocol to a newly developed DC motor crane drive. Hosted design meeting to help clarify previous generation design and improve upon it.
- Developing – Lead the development of the next generation Industrial DC Magnet Controller in embedded C. Used a newly developed drive with shared hardware as a base and the existing generation legacy code as a reference. Created software flowcharts to better outline the implementation of various product features.
- Debugging – Performed extensive debugging throughout the whole design process to ensure the product met the specification.
- Windows Programming – Created a Utility program in C#/WPF with .net framework that could flash the control board of a newly developed DC drive with firmware as well as send/receive Modbus commands to perform various other features such as MAC/IP settings. (approx. 4 months)
- Simplified Agile Development Methodology used and all projects source controlled though Git.

Rockwell Automation – Mequon, WI
Firmware Engineer (Contract) May 2015 to Aug 2017
Product Team: PowerFlex HPC 755T AC Drive: Network capable high power drive leading the industry in motion control and safety: Assignment ended shortly after the product was released

- Unit testing – Performed unit and integration testing of developed C++ firmware through the creation of Python/C++ scripts within an automated build environment, increasing test coverage of methods by 20% (approx. 4 months)
- Developing - object orientated C++ class design and development assignments as a member of the data structure team (approx. 4 months)
- Smoke testing - of database dependency processing feature – Included review of design documentation, review legacy C system to ensure similar processing, formal documentation of testing through code comments and test system through job aids for future use. (approx. 6 months)
- Pre-Release activities – consisting of time evenly spent between C++ design, development, unit testing, and smoke testing first on the data structure team and later on the logic-parser team (approx. 1 year)
- TeamCity version control used throughout project as well as VersionOne for sprint/story management
- Assisted in bringing a new scrum team up to capacity by serving as a unit testing knowledge resource expert
- Collaborated with many different scrum teams to reach project goals and traverse design road blocks

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Kohler Co. – Kohler, WI
Electrical Engineering Intern January 2014 to May 2015
Product Team: Kitchen and Bath: DTV+ real time shower and spa system: Worked 4 hours per day during school and full time during Summers and after graduation until starting at Rockwell

- Co-headed functional testing of the DTV+ product through the creation and use of a formal test plan
- Identified and recorded defects – reported all defects both in a bug control program as well as to senior engineers to quickly help to narrow down anomalies and solve them
- Assisted in hardware development and modification within an engineering lab
- Supervised emission testing of touchscreen user interface at a professional EMC facility and handled any issues that arose
- Participated in Summer internship presentation convention and show cased all work done while on the DTV+ product team

Computer Experience

Embedded C, Microsoft Visual C++, Eclipse IDE, Git, TeamCity and Jira(Version control), CodeCollaborator(Review), VersionOne(Stories), ClearCase(SCM), ClearQuest(Bugs), NotePad++, MultiSim, Simulink, Altera Quartus II, ModelSim, Dave IDE, Microsoft Visual Studio, Git Flow,