MAXTON MANUFACTURING COMPANY

JOB DESCRIPTION
for
Software Engineer – Intern

Status: Seasonal
Dept.: R & D Engineering

Reports to: Product Development Team Leader
Date: February 5, 2018

General Accountabilities:

Under the direction of the Product Development Team Leader, the Software Engineer Intern is responsible for general tasks associated with software development to include: software baseline Configuration Management (CM), applying an Object Oriented Analysis and Design (OOA/OOD) paradigm to requirements gathering and product implementation, the ability to decompose complex systems into measurable and testable requirements, sound programming skills as they apply to C, C++ and various scripting languages, ability to utilize hardware test equipment and software tools associated with embedded systems software development. Applicants should possess excellent analytical and math skills, with the ability to work in a multi-disciplinary team.

Requirements

- Must be currently enrolled as a full-time student at an accredited university in the United States and pursuing a Bachelor’s, Master’s, or PhD
- The ideal student candidate for this position should be designated as either majoring in Computer Science, Computer Engineering or Electrical Engineering with a Computer Science minor.
- Must be a junior or senior that will graduate between May 2019 and June 2020
- Must have reliable transportation to and from work that is located in Minden, Nevada.

How to Apply:

Interested applicants should apply via email to Irene@maxtonvalve.com with a resume attached. Additionally, please include a brief description of their goals as a student and what role they would like to fulfill once they graduate.

Job Specifications

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The role of the Software Engineer Intern will be to assist the Product Development Team with a wide range of tasks that include:

- Archiving of legacy baselines in the company’s new CVS repository
- Software Test of New Product Releases
- Contribute to the Design phase of Software Objects utilizing the UML paradigm
- Limited exposure to Product baselines for C++ coding exercises

Special Project

- Specify Product Requirements, Design Details and Implement an “Elevator Simulator” utilizing Maxton Manufacturing’s production hydraulic control valve
- Each phase of development will be executed under guidance from the Product Development Team Leader and University Staff
- Technical challenges include:
  - Detecting the Valves “stepper motor(s)” position
  - Providing the Valve elevator car velocity feedback base on motor position
    - Simulating a 2500 cpr encoder
  - Profiling elevator car acceleration curves based on:
    - Multiple floor elevators
    - Account for floor position and slow-downs zones
    - Provide elevator controller drive signals to the Valve
- Development Platform
  - P.C. based application
  - National Instruments Acquisition Cards
  - IDE – either LabView, LabWindows or Simulink

Demonstrates good oral and written communication skills for working and communicating in the Engineering department as well as other departments within the company. Attention to detail, a flair for analysis and accuracy are essential to this position. Individual must be self motivated with good business sense and initiative to follow through on matters. Solid judgement and the ability to handle multiple tasks.

Displays excellent interpersonal and team building skills. Demonstrates self-motivation and takes initiative and ownership.