PRUTHVI ATODARIA

2B Mechatronics Engineering
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Technical Skills

Programming languages:
C#, JQuery, SQL, HTML5/CSS, XAML, Node.js, MATLAB

Programming tools:
.NET, WPF, MS SQL Server Management Studio, Visual Studio, MVC, MVVM, Entity Framework, Object-Oriented Programming, Git, SVN

Operating Systems:
Linux (Ubuntu, Raspbian), Windows

Personal Skills

Excellent written and verbal communication skills
Strong team player
Strong aptitude for learning

Work Experience

Software Developer May 2015 – August 2015
Edisoft Inc

- Developed additional features for web application that lets businesses create EDI documents from their ERP system to communicate with various trading partners. Application was developed using C#, the .NET framework, MVC design pattern, and the Entity Framework. Microsoft SQL management studio was used to manage the application's database.
- Improved user experience by improving general appearance of the application through HTML5 and CSS as well as making the application more user friendly and self-explanatory.
- Improved overall performance of application by reducing number of SQL database queries and improving data handling methods.

Software Engineering September 2014 – December 2015
Verifeye Technologies

- Sped up hardware manufacturing process by developing factory setup and test to automate setting up and testing features of new hardware manufactured in the factory. Used C#, XAML, WPF, and the MVVM design pattern to develop software. Unit testing was used to test the software during development.
- Developed serial communication API so that third party applications can send and retrieve information such as images, speed, and position from camera system. API was developed using C and C++ in Linux operating system.
- Discovered and fixed several bugs in aforementioned API by developing shell scripts in Linux to run on a Raspberry PI interfacing with a camera system running the API.
- Participated in weekly scrum sprints to speed up software development process.

Projects

Crib: Web Application for landlords and students in large groups to help discuss and negotiate more easily implemented using Node.js, Socket.io.
Real time OS course labs: Developing embedded software such as binary tree data structures and multi-threaded sort algorithms in C targeted for ARM cortex M3 processor.
Numerical Methods course project: Performed analysis of a 2D truss structure in MATLAB using Numerical Methods fundamentals learnt in class.
Self-driving vehicle: Developing an Arduino based toy car that drives itself and uses ultrasonic sensors to avoid obstacles. Program for car is written in C.

Extra-Curricular

WARG (Waterloo Aerial Robotics Group)
As a member of the mechanical team, I am currently working on the design and development of a new camera gimbal system that attaches a camera onto the aircraft. SolidWorks is used to model and simulate various different designs of a new gimbal system.