

Computer Science

Contract	Term	Course	Contract Title	Contract Description
326087	Fall 2016	CPSC-5125U	The Creation of Transparent and Reflective Particles Using OpenGL	This project will involve the creation of a skybox, the creation of particles, the movement of particles, the reflection of light off of the particles, the passing of light through a particle and finally, a 3D representation of space (the user will be able to rotate the camera around and see the different sides of the particles reflect a different part of the skybox). This will all be accomplished using OpenGL and Microsoft Visual Studios 2015. Furthermore, the coding language I will be using is C++.
327087	Fall 2016	CPSC-3111	Use of Visual COBOL to Control an Embedded System	We will be using Micro Focus' Visual COBOL development suite for Visual Studio to develop a program that will control an embedded system over a network. The embedded system in question is a train set in the Center for Commerce and Technology that was once used by the Robotics courses. The focus for the project will be towards the development process itself, with the program itself being a goal to develop towards.
327098	Fall 2016	CPSC-3108	Comprehensive Analysis of Bluetooth Low Energy Operations and Protocols	As part of mentor's research, a comprehensive analysis on how Bluetooth low energy connections operate, specifically the pairing and data transmission protocols, will be performed, as well as analysis of encryption methods used for securing data transfers through the Bluetooth network. The final goal is to understand the process the devices go through when establishing a connection and then sharing data.
327102	Fall 2016	CPSC-4505	Extracting Causal Relationships for Text Data Mining	My research will be on text data mining. I will explore how a machine can extract meaning in various text data by exploring semantic relationships in the language - specifically, causal relationships. I will try to identify causal patterns and use those to extract the causal relationships in text. I will start by studying all research done so far in the field and then come up with an algorithm to extract the relationships themselves and evaluate the accuracy of the text mining process developed in this project.