**CS 4900 Senior Seminar**

**Team Project 1**

**What to do**

1. Team discussion, propose a term project.
2. Meeting with your customer, convince your customer to adopt the project.

**Team Discussion**

Propose a project with a reasonable workload. The product owner organizes the discussion and summarizes the ideas. You can choose an idea from the following list or propose your own idea.

1. **Auto Grader**

There are many Computer Science Departments having their auto-grading system. With the system, students can submit their source code for each assignment and get it graded automatically; then, students can check their grades from their account, instructors can give comments for each submission through the system. In our department, we would like to adopt an auto-grading system for CS 1301, could you help?

1. **Protein Anomaly Detection Tool**

We have a tool in Chimera platform helping structural biologists detect the outliers in a protein structure (<https://github.com/lin-chen-VA/chimeraplugin>). However, the current tool was written in Python 2, which will not be supported by Python community in 2020; the design is not good, which may cause the software to run slow. Could you please re-design the tool. The details about the tool can be found at <https://www.mdpi.com/2305-6320/6/3/86>

1. **Browsing Monitor**

It is very often that we browse a webpage many times each day, trying to find if there is any update on it, such as a webpage for a serial novel. If there are many such webpages we would like to monitor, we have to check one by one. Could you please design a system to help us monitor those webpages? Please summarize the brief information of those monitored webpages in a single webpage with links, if any of those monitored webpages is updated, the corresponding link on the single webpage can be highlighted. If you can deliver this system, it may be used to many different areas, such as, monitoring research update for our scientists, monitoring a specific type of news, monitoring the price of a product at Amazon, monitoring your own social media webpage, et. al.

1. **Gaming**

Could you design a game for IOS or Android system?

1. **Inspecting Scene**

The unmanned aircraft is gradually adopted by police departments and the fire department for the past a couple of years. It can arrive at the accident scene after receiving a 911 call quickly and send necessary information back, reach out to some dangerous place that is not accessible for a human being, et. al. Could you help design a system, use a drone to collect the images from a scene, and provide users the necessary information, such as what objects are in that scene, how many people are there, if possible, tell us what is happening there. If you choose this idea, I have a DJI TELLO in my office.

1. **Propose your own Ideas.**

**Meet Customers**

Bring the idea your team chooses. Introduce the project to your customers and convince them to adopt your project by introducing the merit, broader impacts, and the potential return on investment (ROI). Introduce your team members to your customer, convince your customers that your team is able to deliver the project.

Customer team members vote to decide if the project will be adopted. If yes, congratulate, your team can move to the next step; if not, have a team discussion again to propose a different project.

**What to Submit**

The product owner should send the project summary to [lichen@valdosta.edu](mailto:lichen@valdosta.edu) by midnight on January 21, 2020.