**CSCI 4390 Senior Project**

**Project Proposal**

**Title**:

**Team Members**: List of student names and UTRGV email address

**Faculty Adviser**:

**Problem/Opportunity Statement**: What’s the specific issue you’re trying to solve or improve? Identify the problem you are addressing in one or two sentences.

**Background**: Provide context and explain the factors that give rise to the problem or opportunity. This might include how people struggle with existing technologies within a certain domain. Explain in one or two paragraphs.

**Survey of Solutions**: What existing solutions attempt to address the identified problem? Research and analyze at least three current approaches. Compare their strengths and weaknesses in contrast to your proposed solution. Demonstrate your ability to critically assess and deconstruct the problem from a computational perspective.

**Proposed Solution**: What do you propose to build, or replicate, as a solution to the identified problem? Focus on the core set of requirements that must be satisfied to solve the problem. Also, how will you evaluate whether the system you build effectively addresses those requirements? What metrics or testing approaches will you use to assess success?

**Survey of Technology**: What technologies or data will you use to develop your solution? Identify at least three products, software, hardware, computer language, tools or frameworks, and assess their pros and cons based on your core requirements. Consider practical elements such as:

* Team expertise and learning goals. It is legitimate to choose a technology because team members want to learn it, just weigh that in with other factors.
* Availability of resources. Consider the availability of data, models, time, and others.

**Risk Considerations**: What major challenges do you expect with your project? Identify at least one significant challenge you may encounter. For example: 1) Software/hardware complex or novelty. 2) Scalability concerns with large data sets or user volumes and 3) Security or privacy issues.

**Project Management Strategy**: How does your team plan to manage this project? Emphasize the importance of ongoing coordination and iterative planning, especially when multiple contributors are working in parallel. You may consider: 1) defining team roles and responsibilities, 2) planning and progress-tracking methods (e.g. Jira, Trello, etc.) 3) selecting tools (e.g., Gantt charts, project boards, shared documents, version control), and 4) establishing communication practices (e.g., regular check-ins, updates, decisions logs)