CS546 Final Project Proposal 2

## Team Members

* Christine Anthony
* Jamal Bell
* Haonan Guan
* Jason Wood

Project Apollo Sidecar

Enrichment Hub for Students

## **Introduction**

We are excited to introduce our innovative learning application, which aims to create an intuitive community-based learning platform (The initial app’s lesson is a sidecar for CS 546 Web Programming).

Our platform allows faculty and students to easily create, modify, and delete supplemental course lessons. Exceptional students, usually TAs or tutors, can make learning tutorials to help their fellow students. Courses will be tagged based on whether faculty or students created them. Students can also get help from the community of faculty and students and track their learning progress.

Apollo Sidecar enables Stevens faculty and students to create a seamless and collaborative learning community. The question-to-answer feature allows everyone to share their knowledge.

## **Problem Statement**

Students often spend an excessive amount of time searching for external resources to supplement their understanding of course material. Professors require an intuitive platform to create online courses or supplementary learning material. Exceptional students lack an innovative platform for tutoring and helping their peers, which could help them build their status. Building online active learning communities is often challenging, and there is a need for a single platform to create one.

## **Core Features**

### **Admin Profiles: Core lesson platform**

* Add content
  + Text
  + Videos
* Organize content
* Add videos
* Edit the lesson
* Publish or keep private
* Advanced Search and Filters

### **User Profiles: Learning platform**

* Register, login, and cancel
* List lesson track and indicate the ones completed
* Track QA posts and number of responses
* Create, edit and remove lessons
* Tagging for faculty based lessons
* Recommendations/Voting
* Advanced Search and Filters

### **Community Q&A**

* Post
* Comment
* Recommendations/Voting
* Advanced Search and Filters

## **Extra Features**

### **Online Javascript coding sandbox**

A Javascript sandbox that can be used in-lesson and for practice.

### **Gamification**

Incentivize users with recognition and goals.

### **~~Recommendations/Voting~~ (moved to core)**

~~Ratings in various places throughout the app~~

### **User Notification**

Notifications when certain actions are completed.

### **Customize theme**

Title, logo, and colors on page headers can be scalable to accommodate different institutions.

### **~~Advanced Search and Filters:~~ (moved to core)**

~~Users can search for lessons, tutorials, and Q&A posts based on various criteria like subject, topic, popularity, date, and more, with more advanced capabilities.~~

### **Progress Tracking and Analytics:**

Provide detailed analytics for users to track their progress and learning performance over time. This could include graphs, statistics, and recommendations for improvement.

## **Project Impact**

The Apollo Sidecar will enable faculty and students to create a seamless and collaborative learning community that enhances the academic experience. This application streamlines the learning process and fosters a stronger sense of community, collaboration, and overall skills among students.

## **Conclusion**

The Apollo Sidecar project is an ambitious but highly valuable endeavor. By addressing the challenges students face in producing and accessing supplementary learning materials, and creating a strong learning community including a supportive and resource-rich academic environment, we aim to transform the way students at Stevens access, engage, and interact in support of each other’s success. The initial project is a collaborative endeavor, with the possibility of a future where we can work together to achieve this goal.

## **GitHub**

https://github.com/jamal-bell/apollo-sidecar

## 