



COLORADO SCHOOL OF  
**MINES**

Computer Science



**Project Title:** Bytesize Stories App V2

**Client:** Prof. Kathleen Kelly

**Preferred Team Size:** 4 students

**Work Location:** On campus

**NDA Required:** No

### **Background**

The purpose of this project is to convert an educational learning tool from a GameMaker Studio project into a more versatile app that can be run anywhere. A summer team started on this work but it needs to be pushed to completion.

As part of my PhD research, I am creating educational games and tools to be used by students as a way of increasing learning engagement and motivation. My latest tool is entitled Bytesize Stories, a tool that helps students learn difficult concepts with story-based learning. In order to further my research, I would like to offer this tool to students outside of Mines.

The tool is currently built using GameMaker Studio, running on an HTML page on my professional website with a backend Python server. However, GameMaker HTML games seem to be memory hogs (or maybe it is just my game!), and the UI is not very clean. Instead, I would like to rebuild it as a webapp using Phaser or something else. A summer team has moved this along with Phaser but there are many more features still needed.

### **Project Description and Deliverables**

A new version of Bytesize Stories that can be accessed from the web, can handle many users at the same time, and has a more polished UI. The current tool created with GameMaker Studio can be viewed (while on the Mines VPN) here: <https://kathleenmariekelly.com/research>. This version is functional and has been piloted with students, but there are more features needed.

For this field session project, I would like a new version of Bytesize Stories that contains all the features of the current GameMaker version, but is created using Phaser (or we can discuss other options). It should also include new features of more interactivity with the stories and adding more game features. I have a huge backlog of additions I would like to add in order to push this tool to completion.

I am very excited about this project and would love your help! I am open to ideas from the team on how to make this tool better, more polished, and scalable. Thank you!

### **Desired Skill Set**

Ideally, team members will have a bit of frontend UI experience. Phaser uses JavaScript as the main coding language. The backend is written in Python.