

**Exercise 3**

# Generative Code

**Due date: In class on 2/26/2026**

**Description:**

One of the most reported-on applications of large language models is in the realm of computer programming. The latest and most powerful models are able to write complex programs from scratch, and companies are starting to encourage their engineers to use these tools in an effort to push out products faster or reduce the number of engineers they need to hire.

Another effect of this boom is that programming has become more accessible. The learning curve for programming has always been quite difficult, and it is hard to make incremental progress or remain motivated when your beginner programs are not exciting or expressive. With the advent of LLM-assisted programming, many people who have never programmed before are beginning to do so.

**For Exercise 3, you have two options:**

You'll create a program (a piece of software art), that either:

1. was written with the assistance of an LLM
2. or uses an AI technique directly (e.g. using a machine learning library, genetic algorithms, etc)

For ease of submission/grading, I'm asking that you write your programs in Javascript, using the [p5.js](#) platform. Programs are referred to as "sketches" in the p5 community, and are typically

small audio/visual programs. You can review some examples from the community [here](#).

*If you have not programmed before: do not worry.* There is additional time to complete this assignment and I have scheduled multiple in-class work days to answer questions and help unblock you when you encounter difficulties.

### **Submission details:**

- Your submission will take the form of a shareable [p5.js](#) project on [their online editor](#).
- You'll sign in using your PCC gmail account, save your project, and create a share-able link (I will demo this in class.)
- Submit that link, *alongside a 250 word reflection* on the process of creating the program, to D2L.

You should come to class on **Thursday, Feb 26th** prepared to show your program to the class.

As usual, it is not the final product that you'll be graded on, but your process and engagement with the material.

***You must present your program to get credit on this assignment.***

### **Technical Resources and Inspiration:**

<https://p5js.org/reference/>

This is the authoritative reference on what [p5.js](#) is capable of. Copy/pasting information from here can correct an LLM that is going down the wrong path.

<https://p5js.org/tutorials/criticalai1-chatting-with-about-code/>

If you read anything at all from this list, this would be the one to do. It's a basic tutorial, with useful tips for programming with LLMs

<https://ml5js.org/>

This is a small library suited to running machine learning models alongside [p5.js](#). This is a great option for anyone in the class opposed to using large models run by tech companies.

<https://teachablemachine.withgoogle.com/>

For more advanced students, this is a system that lets you train small models and produces code that can be copy/pasted into your p5 sketch

<https://fyprocessing.tumblr.com/>

This is a page cataloguing some great Processing sketches (Processing is the technology ecosystem [p5.js](#) is a part of.) A useful place for finding some inspiration.