Final project abstract

We are interested in generative modeling, in particular film poster generation with text prompts using a text-to-image generator, namely a stable diffusion model. We will fine-tune the Stable diffusion model to generate movie posters conditioned on a text prompt composed of relevant elements of the movie (such as genre), using images scraped from IMDB (https://www.imdb.com/) which besides the posters, has also movie metadata, such as country of origin, genre and storyline. There are millions of images, however we will be selecting a subset of it for fine-tuning. We have access to computational resources such as Satori, where we can train our model on multiple GPUs. Since we will not train the model from scratch, we should be fine.

Team composition, all members are enrolled in the undergraduate version (6.s052):

1. Alison Yao has a background in Data Science but is new to generative models. Alison took 6.390 Intro to ML last semester.
2. Luis Henrique Simplicio Ribeiro has a background in Computer Science and Data Science, and some experience with generative models.
3. Isidora Diaz has limited experience (this is her first ML class), new to neural networks in general.