

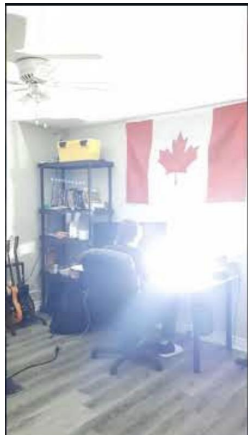
[Self-playing Piano](#)

An apparatus that can be set on top of a piano to play any song you want. Very reliable playing MIDI, but can automatically convert Youtube videos to MIDI files to play those as well. Made to learn more about hardware, as well as make something with a larger scope.



[Enhanced Flashbang](#)

This was a weekend-project created for fun. It has hardware that flashes an extremely bright light when a flashbang goes off in the game CS:GO.



[AutoAnki](#)

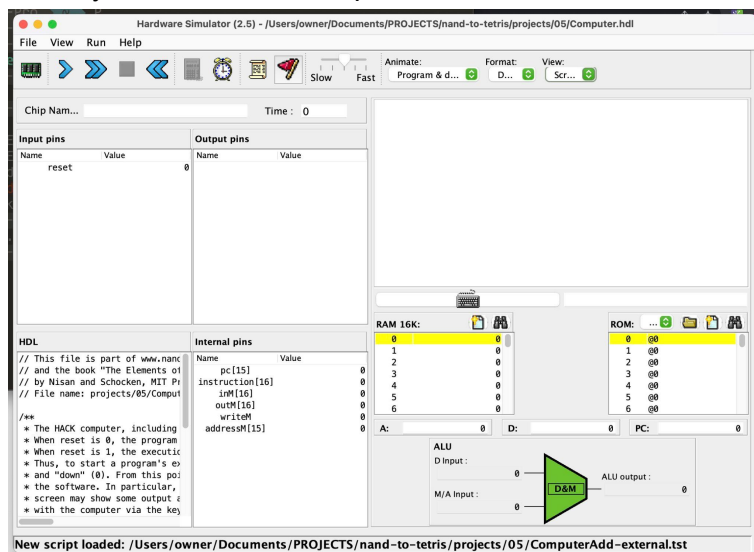
Automatically turn Chinese books into collections of Anki decks (A flashcard memorization app)

The intention was to allow Chinese learners to move from beginner books to more advanced material. I found there was a gap in knowledge going from beginner learning books, to teen novels, where each novel will generally have its own specialized terminology, making the transition tedious. This is solved by automatically making Anki decks that have this specialized terminology

An example would be Harry Potter. It will have lots of common terminology, but will have a heavy emphasis on specialized words such as Wand, Robe, Wizard, Broomstick, etc. These words are very uncommon, however in the context of a novel such as this they become way more common, and it is useful to learn a lot of these words before starting.

NAND to Tetris

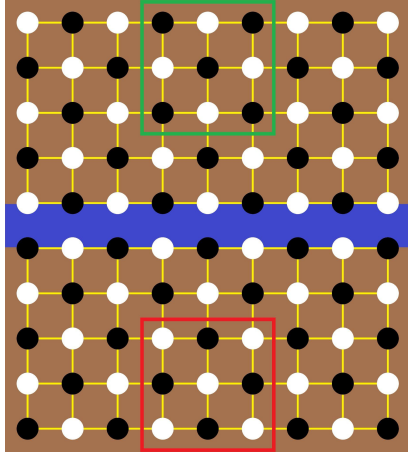
My solutions to the NAND to Tetris project found [here](#). NAND to Tetris is a challenge/project where you construct a computer from the basics.



Cota

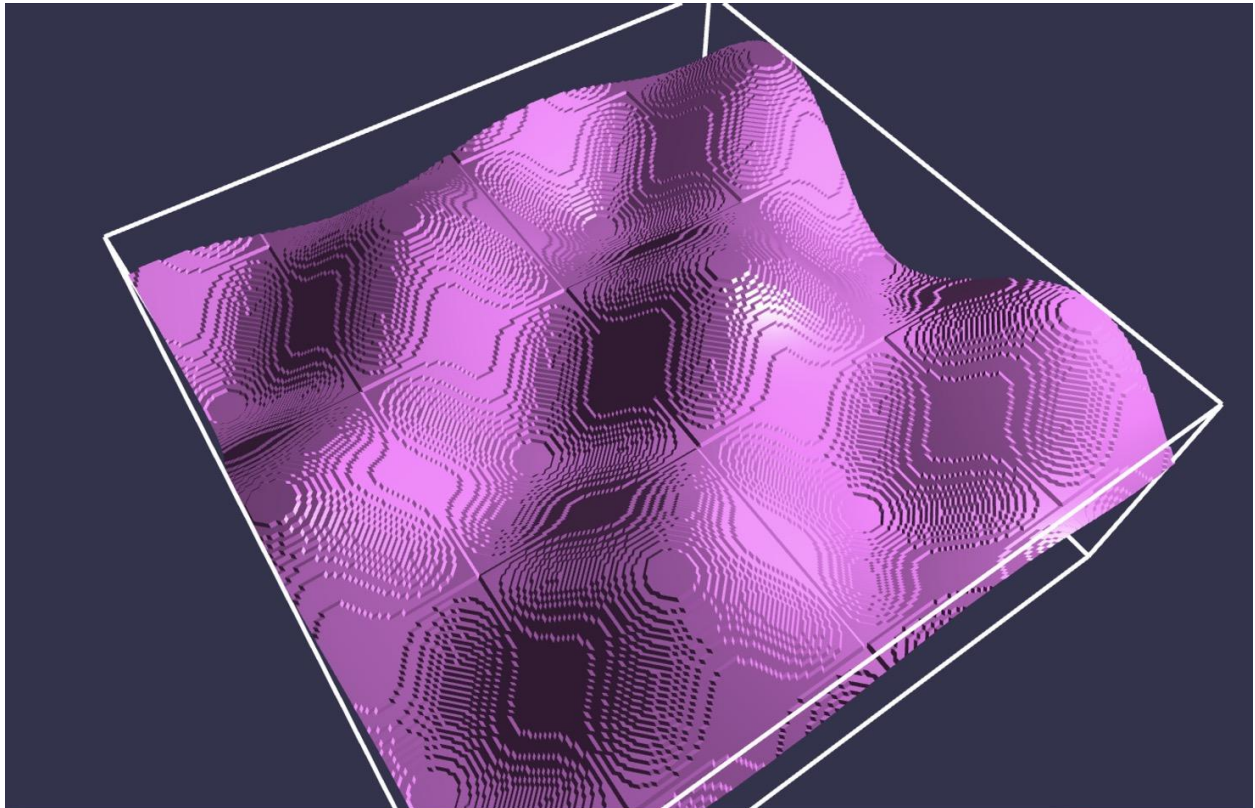
Cota is a board game created by a Vietnamese friend. It has elements from Chess, 象棋, Shogi, and Go.

I decided to create a Virtual version to supplement the physical version. This project was both to learn Rust, as well as work on a difficult problem to solve. That being, the complex rules of the game.



[openGLProjects](#)

A collection of assignments created during a computer graphics course taken at University. OpenGL was used during the course, and some interesting algorithms and techniques were used during the course, such as a marching cubes algorithm.



See my Github for more information, as well as my other projects!