Building a game:

I will begin by researching existing games and 2D physics engines and game engines, seeing how they were put together, and how it is possible to make a physics and game engine. I’ll look at how the environmental interactions were made possible, and how I can make everything interact in a physics engine. Ideas for research:

* The Legend of Zelda
* Mario
* Metroid
* Shovel knight
* Binding of Isaac
* Pokemon 2D games.
* Early arcade games.
* Bionicle flash games

After doing my research and making a note of how I want to build the game, I will be making a decision on the language I want to use to build it. After I have managed to start fleshing it out, I want to polish it and make it as refined as possible and add environment and texture. Look at enemies and possible enemy AIs if I have the time.

Build a Physics engine:

* Look at existing Physics engines, what they do and how they do it- ie early physics engines in Zelda or Mario, Metroid and later ones such as Shovel knight and other indie games.
* Focus on interaction with environment and player.
* More likely 2D, 3D is too hard.
* Look at which language is best once I have made a suitable plan.
* Top down or sideways?

Using 3rd or 1st party data:

* Create a tool for competitive video games which uses previous outcomes to determine probability of what happens next, as well as looking at competitive history of opponents.
* Tube and bus map combinations which are updated Live.
* Movie database manager.

Board game AI:

* An AI that uses machine learning to try and improve at board games, knowing the basic rules
* ie Checkers, Quarto, Abalone
* Matching games?