Many of the STEM students are asked to learn coding in their freshmen year in university. However, many of them don’t know why and how to they need to do so. Today, in my presentation, I’m going to why codding is necessary.

The first reason is that many natural phenomena can’t be simplified into mathematical expression when we first observe it. So, in many cases, we will firstly ask for its governing equation, which is usually too hard for us to calculate, to do numerical simulation.

The second reason is that it can help us doing research. Some of the experiments and observations will gather immense amounts of data. In this case, coding can also help. It can help us to process the graph between different variable and thus scientist can do further research.

Now, I’m going to share my own experience on how coding helps me. It helps me in two ways: one is doing research, the other is saving my grade. Or in another words, these two things are the same. Both of which happened in my final report of the introduction of atmospheric science. My topic needs to use programming language to simulate the process of geostatic equilibrium. The picture in this page is part of my code. The consequence of the report and presentation are both quite successful. Maybe it can balance my poor grade in this course.

To summarize, I think coding is a quite convenient tool for me, and it also helps me a lot. So, I think it is a good choice to learn it, whatever type of languages you choose. That’s all for my presentation, thanks for listening.