

Programming Languages – CSCI 169

Project Phase 1

Part a)

For this project I have chosen to work with MATLAB. The reason why I have chosen this language is because it allows me to apply in a more straightforward manner the concepts learned in the math classes that I have taken at SCU like linear algebra or numerical analysis. I like how MATLAB implements arrays and matrices and the operations on them, since this was a topic that I struggled with when I was learning C/C++ and MATLAB makes it much more natural to learn and write mathematical algorithms that work with matrices. Another thing that impressed me about MATLAB and gave me the confidence to decide to learn more about it is the quality of the documentation. Both the official docs and the community forums are full of up-to-date and concise descriptions of the different functions and how to solve problems that might arise. This is something that I really value as someone who is trying to learn a language, as it can be intimidating when one has a problem and there is no useful information to be found on the Internet. Another thing I liked about MATLAB is that, despite being proprietary, it supports many platforms like MacOS, Windows and Linux. Finally, I like the IDE that MATLAB offers and how polished the user interface is. Tasks like generating a plot and debugging seem to be much easier compared to other languages that I have used.

Sources:

<https://www.mathworks.com/products/matlab/why-matlab.html#reason1>

<https://www.mathworks.com/matlabcentral/answers/42134-as-a-software-engineer-why-should-i-use-matlab>

<https://www.mathworks.com/matlabcentral/fileexchange/40961-super-mario-bros-demo>

<https://blog.devgenius.io/what-is-matlab-why-we-need-it-d61e405ef419>