82054420

Q1) Role of Engineering: This question is related to the roles and responsibilities of a professional engineer. Give one example to describe the role of computer engineering in a broad context pertaining to each of the following:

* Public interest and welfare
* Safety
* Environment

**I believe a great example would be cryptocurrency mining (mainly for proof of work cryptocurrencies). In terms of public interest and welfare, there are definitely arguments that can be made for and against decentralized currencies. As a computer engineer, it is important to be transparent regardless of your views, such as in explaining cryptocurrencies may affect more traditional banking. This can also relate to safety, as depending on the public’s view on cryptocurrencies, regulation, or lack of may affect the economic safety of our society. Lastly, there’s the environment. The act of using proof of work is incredibly energy consuming, which definitely should be considered by computer engineers, should they decide to create new cryptocurrencies. Furthermore, potentially new GPUs with a poorer balance between hash rate and environmental harm may be developed, which may also harm the environment. Thus, it is important for us to consider many things to be responsible computer/professional engineers.**

Q2) Engineering tool assessment: You have used Tkinter as a programming tool for GUI development. Describe one limitation and one good feature of Tkinter based on your experience.

**This is not much of a limitation, but I believe that Tkinter looks quite dated. Outside of learning, or for simplistic representations of data, I don’t think I’ve ever seen Tkinter being used. As for the good feature, because of its simplicity, it was really quick to learn. Its objects are quite well documented, and it was quite easy for me to create a GUI display of data.**