Dominic Drury

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**Define**: Software requirements engineering is the process of transforming the software requirements into useable information for the development team. This usable data includes “a description of required software, performance parameters, and a configuration through the iterative process definition, tradeoff studies, analysis, and prototyping” (Fahmi & Choi, 2007).

**Purpose**: Software requirements engineering is an important part of the software development life cycle because, it gives the development team what the limiting factors are of the system from the requirements that they have provided, an analysis of the system and what it needs to function, as well as the specification and validation of the proposed system (Fahmi & Choi, 2007).

**Comparison**: The approach of software reverse engineering and the approach of software requirements engineering differ in several ways but the primary one that I have noticed is that reverse engineering is the process of looking at a completed system and figuring outr what its requirements are and the design specifications of that system, whereas software requirements engineering is the process of looking at the requirements and the design specifications and figuring out what the software requirements will be for the unfinished system.

**Impact**: I think that the proposed new integrated approach of round-trip engineering will have a substantial impact on the computer science field. I think that integrating reverse engineering with requirement engineering will help eliminate redundant code, highlight the vital code, and give a better understanding of the model being built. As a final addition, while it was not talked about in the paper, and though I lack the knowledge to speak with any real foothold in the subject, I know that a major concern with AI models is the lack of explanation on how the models get their answers through their neural network. A possible solution to this might be in the realm of reverse engineering the model’s network to figure out its inner workings and decern how the model came to its conclusion.

References:

Fahmi, S. A., & Choi, H. J. (2007). Software Reverse Engineering to Requirements. International Conference on Convergence Information Technology. https://doi.org/10.1109/ICCIT.2007.228