Am I a Computer Scientist?

I call myself a computer Scientist, but I feel like I am leaning more towards software development. I have taken algebra and higher-level calculus, but I don’t have a theory knowledge that makes a good computer scientist. In the article “SE programs are not CS programs it tells that CS program usually has compiler design, operating system, numerical method and proving, big data, software engineering [1]. When I graduate, I will have three software engineering class while none of the other classes. I will have no classes that makes a computer scientist except numerical proving and algorithm, which is not enough for being a computer scientist at least in my opinion.

I feel like one should not be a computer scientist, programmer, or software engineer according to the major. It should be according to what he wants to be and what he studies. The skills one learns during college time should be counted more than the classes he takes in school. There are lot of online medium to learn programming and CS stuff. One can learn from there too. Even though I have a lots of software development classes I think I have enough knowledge from classes and certification that I can call myself a computer scientist with software engineering skills.

The fact that I call myself a software engineer is I have completed all the core classes needed for software engineering. I have taken classes where I have to analyze the requirement of the software and record those requirements in a precise, well-organized, and easily used document. I have done testing and maintaining of a software over its life cycle. I have learned different programming skills to implement functions in hardware and software so the application can perform. Using existing software to make better updated software. I have most of the skills that are required by software engineer.

I am also a computer scientist by my degree. By the time I will graduate I will have a theory classes like numerical analysis, algorithm, and research classes like machine learning and some skills of designing a neural network with math heavy skills. These skills are not like using of tools or library to make a software. It is coming up with the design and pattern to solve problem that was not solved before. These classes will help me to solve real world problem that is in software development. The problem can be different in different number of times. These classes will provide me a tool to come up with solution which will be implemented by software engineers.

Taking about my skills I know logics and inner workings behind how computer system works. I can come up with an algorithm that can generate a pattern we need in a software. I can design the basic compiler that can accept command from application and apply that in a hardware. I know in and out of computer system, but not only applying the already known topic like software developer.[2] In general I am a Computer Scientist with focus in Software Engineering.

Reference:

[1] Parnas, D., "Software Engineering Programs Are Not Computer Science Programs", *IEEE Software* vol. 16, no. 6, pp. 19-30. Nov. 1999 [Online] Available: [http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=805469](https://content.byui.edu/file/eb4c89dd-9780-4714-8bba-15c57470623f/1/ieee_software_00805469.pdf)

[2] D. S. Janzen, “ Software Engineering / Computer Science Difference,” *Difference Between Software Engineering and Computer Science at Cal Poly*. [Online]. Available: https://users.csc.calpoly.edu/~djanzen/secsdiff.html. [Accessed: 07-Jul-2019].