

It was a tough, but rewarding journey.

Three years ago, when I was in secondary school. I was a programming maniac. At that time, I always thought that “writing computer software = programming”.

When I was selecting subjects in JUPAS, what I considered were only those “computer-related”. I thought, “Well, software engineering (BEng(SE)) should be some how similar to computer science (BSc(CSIS)), just differ in their names.” Then, I chose BEng(SE) just because being an engineer sounds more professional.

My naïve thoughts on that day changed my life.

In the three years after that day, I did learn the definition of Software Engineering and also explore and experience it.

Software Engineering is about taking systematic and engineering approach to solve real problems facing by people everyday, with software system as a part of the solution.

Well, you may not get much from my definition. Let me tell you some aspects that we usually cover in software engineering.

During the studies, I learned and realized that only programming is not enough to develop software. Before that there are requirement capturing, analysis of problem (or business domain) and design of the software system (including architecture, and other static and dynamic aspects of the software). Next, we have programming, or in our terms – implementation. After that there are software testing to ensure software quality, and product delivery. Furthermore, the whole development process is about a group of human beings working together, but not machines. Therefore, we have project management issues in any projects. As you can see, we do not only concentrate on technical stuff.

There are much more amazing things during the three year study that I cannot cover in detail here. For example, have you ever thought of quantizing quality of software? (i.e. represent software quality in numbers?) How to develop a software system with 100 developers? just sit in front of computers and start programming? For the last program you wrote, how confident you are that it is bug-free? Can you give me a number to represent your confidence?

I also explored in this field through my teachers from the software industry. They are real software engineers working in the field. During lessons, they share their real-life experience in solving real problems everyday.

You may be curious on how I experience Software Engineering in my study. They key to this are the projects during the three years of study, especially the final year project that I am proud of. In our final year projects, we have real clients from the society. We develop software systems to solve their everyday

problems. That means they are going to use our product everyday during their work. I was excited because some people really benefited from what I developed, not just for one or two days but for their daily work.

You may still have a question in your mind, “why do we need software engineering?” I am sure other part of this web site gives you the answer. In my mind, we are developing more and more complex and large software systems. More and more amount of money and people are invested to software development. Therefore, it is important have a systematic approach to manage the large amount of resources to construct complex and large software systems.

At last, I do have some suggestions to JUPAS applicants.

For those who have never touched programming before, if you are committed to contribute to the society by solving people’s problems with rapid growing IT technologies, join the SE programme! Don’t worry about the programming skills. There are introductory courses for you.

For those who love programming, if you want to broaden your mind and fully utilize your knowledge to improve people’s lives, join the SE programme! Don’t worry about losing chance in taking traditional computer science courses like Artificial Intelligence and Computer Graphics. You would definitely not. Engineers still need to keep them updated to computer technologies.

I am sure my journey goes on, when I enter this exciting field.