UTM
UNIVERSITI TEKNOLOGI MALAYSIA

FACULTY OF COMPUTING
UTM Johor Bahru

SUBJECT: Technology and Information System (SECP1513)

TASK: Academic Writing on Industries Talk 2

TITLE: Skills in University and Industry

TOPICS: Speaker's Experience, Basic Skills Needed to Success in IT Field and Industry

LECTURER: DR. PANG YEE YONG

GROUP MEMBERS:

---

1. TAN JIAN XIN A24CS0303
2. KOR YEE HENG A24CS0257
3. SIVARAJ A/L SIVAKUMAR A24CS0194
4. ZHENG ZHANG CHI A24CS4043

SPEAKER BY:

The talk was conducted by Encik Mohd Hakimi Iqmall and Encik Nik Mohd Habibullah on 17 December 2024. Both speakers are from the computer science course, which is Graphic and Multimedia, and graduated from Universiti Teknologi Malaysia. Encik Mohd Hakimi Iqmall works at ME-Tech Solution Sdn Bhd and Okakichi Sdn Bhd before and is currently employed at UTM Digital, while Encik Nik Mohd Habibullah previously worked at NI Solution and Micro Semiconductor Sdn Bhd. GetMe Hired and Dialysis Manager are the products done by him.

As a student of computer science, there are a lot of hard skills that we have to learn and master it. A well-known example of this is the skill of programming language. Proficiency in languages like C++, Python, and JavaScript is very important in solving computational problems, developing applications, and building software by gaining a deep understanding of algorithms and data structures, which can optimize the system or a program's performance. Next, we must learn to use development tools and choose according to our preferences, like VSCode. It provides many features like extension, cross-platform compatibility, built-in debugging tool, etc. Moving on to the next point, it is essential to have knowledge of version control systems such as GitHub and GitLab. These systems allow us to keep track of changes to our code and facilitate efficient collaboration among multiple developers on projects. Furthermore, being able to debug is required for a programmer. Errors cannot be avoided, so we must be confident in our debugging skills. In cybersecurity aspects, a programmer should have security awareness to protect the system from being hacked to prevent data loss and financial loss.

On the other hand, soft skills are non-technical skills relating to how you interact with others. It is more focused on social, problem-solving skills and communication among others. Firstly, a programmer should have problem-solving skills which involve identifying business needs, understanding the challenges, and providing the best system solution during the planning and analysis phases. Besides, effective communication can benefit everyone in a workplace. In order to bridge the gap between stakeholders, developers, and end-users, communication is important during the requirements gathering, planning, and implementation stages. Moreover, testing and quality assurance skills are needed during the testing phase to guarantee that a product will perform as expected in various conditions. Accurate documentation and reporting are required throughout the project lifecycle to maintain clarity and alignment. For example, details about the project plans, user manual, requirement specifications, etc. In addition, a programmer with good leadership skills is able to guide and lead the team towards the project goals by giving them motivation and direction. Last but not least, collaboration among team members is the key to having a successful project. It promotes exchanging ideas with others to solve complex problems. To sum up, there are many skills needed to succeed in the IT field and industry. By combining these hard skills and soft skills, it can ensure that computer science students are able to adapt at solving technical problems and create a positive and functional work environment.

REFLECTION

After attending the talk, I have a plan to be hardworking in the next four years, not only to improve and strengthen my hard skills like coding and debugging but also to learn some soft skills abilities like the way to communicate with others and problem-solving skills. By setting clear goals, I will always spot my weaknesses and try to improve them and dig deep into my interests and needs to find an industry and type of job that I like once I graduate. Then, I will do some research about the company and the job to reduce the risks of applying for the wrong job. Lastly, I am ready to face challenges, and I believe I will overcome them and bring me to success.

(TAN JIAN XIN A24CS0303)

The talk made me realize that success in computer science is not just about mastering programming languages like Python or C++, or understanding debugging and database design. It is also about solving problems effectively, communicating well, and working in teams. Over the next four years, I plan to build a strong foundation in technical skills while joining projects that help me apply what I have learned. I will focus on improving areas like security awareness and system frameworks, as well as developing leadership and teamwork abilities through internships or competitions. By embracing challenges and continuously learning, I am confident I can grow into a skilled computer science professional, ready to tackle any problem that comes my way.

(KOR YEE HENG A24CS0257)

The talk made me see that doing well in computer science means more than just knowing programming languages like Python or C++ or using tools like GitHub and VSCode. It also needs problem-solving, working in a team, and clear communication. These soft skills matter as much as technical skills. In the next few years, I want to get better at technical skills by working on projects that use what I study in class. I will focus on subjects like algorithms, cybersecurity, and system optimization. I also plan to improve my teamwork and leadership skills through internships, hackathons, or group projects. By being open to challenges and always learning, I think I can become a capable and complete computer science professional, ready for any challenge I face.

(SIVARAJ A/L SIVAKUMAR A24CS0194)

Learning in the field of computer science needs to focus on core knowledge, such as programming foundations, data structures and algorithms, computer systems, etc. By participating in project practice and algorithm training, I can improve my practical ability and logical thinking. By reading technical documents, I can improve my communication and problem-solving skills. In addition, I will choose the segmentation direction according to interest to obtain relevant certification that will help me to enhance competitiveness. I will continuously learn about industry frontier trends and open-source technologies that can maintain technological advantages and adapt to industry needs.

(ZHENG ZHANG CHI A24CS4043)