

FACULTY OF COMPUTING TECHNOLOGY AND INFORMATION SYSTEM (SECP1513) SEM 1 24/25

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REPORT ON INDUSTRY TALK (SKILLS IN UNIVERSITY AND INDUSTRY)



By Speakers: Encik Nik Mohd Habibullah Encik Mohd Hakimi Iqmall



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CONTENT OF THE TALK

The speak is presented by two experienced speakers, mainly on skills needed in Information and Communication Technology (ICT) field. The first speaker, Encik Mohd Hakimi Iqmall pursued his studies related to Graphic and Multimedia in Universiti Teknologi Malaysia (UTM). After finishing his studies, he started off his internship at MF-Tech Solutions in 2017 as 3D modeler and animator. After that, he joined Okakichi as game programmer. He then moved to UTM Research Computing from 2019 to 2021 and currently working in UTMDigital as a project manager. Some of his previous projects were Welfare Service System, Payroll System and also game application called "Kingdom Ran". Meanwhile, the second speaker, Encik Nik Mohd Habibuallah also comes from Multimedia and Graphic background and graduated from UTM in 2005. He then developed a startup company called "NI Solution" which enterprise Artificial Intelligence (AI) and Internet of Thing (IOT) solution to government or private sector. Since then, he had developed several projects such as GetMeHired, which aims for career development and helps fresh graduates to find career jobs.

The ICT field has been a fast-growing industry in recent years. Therefore, it is essential for us to build a strong foundation in computer science during our study to be able to remain competitive. First, we must sharpen our programming skills, as it's one of the most core elements in ICT jobs. We must excel in different languages like C#, Python, and Java, as each language is used for certain purposes. Other than that, we should understand how version control works and apply it by platform like Git, as it is important to merge programs from every member of the project. Besides, mastery of development tools like VS Code and system frameworks like Laravel is compulsory for the industry as well. Furthermore, database structure knowledge is crucial for data engineer students. We must be able to understand terms like indexes, schemas, and constraints and master MySQL by the end of our study. Additionally, we must build strong analytical, logical, and debugging skills to solve certain issues with the shortest steps and the best solutions. Lastly, security awareness is essential to avoid cybersecurity issues such as Cross-Site Scripting, Request Forgery and SQL Injection.

Not only hard skill is crucial, we also must enhance our soft skills to stand out from others. As a project manager, we need a strong leadership and management skills to overcome challenges and keep the team on track to ensure the project could succeed. Furthermore, communication skill is also essential to convey complex ideas between the technical team and users. Besides, knowledge in system development file cycle and its frameworks such as DevOps, Waterfall, and Agile are also critical as an approach in developing a project. Additionally, testing and quality assurance (QA) skills is compulsory as well to verify is the program aligned with customer needs or not. Next, risk management is an ability which is often neglected but actually extremely important in handling data loss by method such as backup server and cloud storage. Other than that, problem solving skill is a must so that we can lead the team in the right direction while working on the project. Last but not least, communication skill is crucial to bridge the gap between clients and programmers. With this, programmers can understand client needs easily, while clients could visualize the development progress clearly.

REFLECTION

In a nutshell, what university teaches us are basic knowledge and general skills that are needed for our career. However, there are also certain skills that we have to learn on my own, such as the ability to code and debug a program efficiently without being dependent on others. To add on, management skills are also vital in industries as they offer good communication and teamwork among our peers to work together to get the job done. Needless to say, as a student right now, I should absorb all the knowledge the university offered to me and be well prepared of any technical encounters in my industrial experience later on. (Parthiv Gunalan)

In my two cents, I would need to balance my time in learning technical skills and social skills. With strong analytical skills and foundation on coding, I am able to resolve myriads of problems encountered when I work in the industry later. Meanwhile, social skills enable me to communicate with the clients and understand their needs, and I can work well with my colleagues in workplace without any hurdles. For that, I will participate in various activities to enhance my personal development and boost my confidence. Hence, I can be well prepared for industry and boost my portfolio, so I can be outstanding in the ICT field. (Heng Zhi Qiang)

Throughout this talk, I've gained valuable insights and have a clearer visualization on my future career path. First, I must get out of my comfort zone and start pushing myself to learn new stuff, as that is the only way to improve my skills effectively, although the process could be miserable. Besides, considering socialising skills as my weaker part, I should start to improve it, as it's impossible to survive in the workplace without great communication skills. Additionally, we should learn the practical use of the theory we learned in class, because theory without implementation is nothing. Lastly, I must be aware of the latest technology such as quantum computing to survive in the market, as the ICT field evolves rapidly. (Chun Yao Ting)

This talk had inspired me to expose myself to a more independent learning environment. The key to success is to build a solid foundation in programming, which plays a crucial role in making my work more efficient. Second, the speakers had inspired me to develop my soft skills to have a good collaboration with colleagues as well as being able to commute efficiently with the client. Next, I have to develop a strong documentation skill to explain process, function, and concept of project clearly and concisely in a structured format for clients. With all these commitments, I believe I can succeed in the ICT field in future. (Ong Yi Wen)

In my opinion, this talk is a golden chance for me to gain valuable guidance in my future path. First of all, this talk had inspired me to find passion to keep pushing me to the path of success in ICT field. Besides, I should also seek for resources online because the knowledge taught in my study will not be enough for my industrial experience later on. Other than that, I should also avoid relying too much on AI tools because it restricts my chance in learning the basis of the knowledge. Lastly, I found out there are more perspectives we need to consider in our program in actual workplace, such as security, efficiency, and readability. (Tang Wei Yang)