

# Technology & Information System

## Assignment 3: Academic Writing



### Topics:

- 1) Designing Success from Graphic Multimedia to Leading Projects
- 2) Preparing for Entrepreneurship in IT

<u>Name</u>	<u>Matric Number</u>
Tan Jun Quan	A24CS0304
Tien Wei Sheng	A24CS0308
Neoh Sun Hong	A24CS0284
Wong Jia Kai	A24CS5033

## **Description of the speaker experience**

### **Nik Mohammad Habibullah**

Mr Habibullah was a UTM senior that graduated in 2005. In year 3, he was doing his internship practical at the Digital library UTM. For that year, his cataloging thesis system helped the Digital Library UTM separate the thesis through the key words like chemistry thesis, technology thesis or biological thesis with the library subject header. It totally helped him get the recognition from the UTM library's chief IT officer, Mr Anwar and his academics also got a good grade. After graduating, Mr Habibullah established a company called NI Solution. He also got a company called Micro Semiconductor Sdn Bhd from his friend with a lower price. Through these two companies, Mr Habibullah successfully completed two projects called GetMe Hired and Dialysis Manager.

### **Mohammad Hakimi Iqmail**

Mr Hakimi started his studies in 2014 and graduated in 2018. Firstly, Mr Hakimi was interned in ME-Tech Solution Sdn Bhd during his studies. He was assigned to set up a sheet simulator, create 3D models and also animation. After he graduated, he got hired in a short time as a game programmer in Okachi Sdn Bhd to create games. One of his projects is Kingdom Ran. After a year, Mr Hakimi went back to UTM to continue his jobs. He got admitted as a system programmer in UTM Research Computing and handled the projects such as Research and Development Information System (RADIS) 4.0 and ICESys. After working for two years, Mr Hakimi was posted to UTMDigital as a project manager and system analyst until now. He had various projects with his team which consisted of Public Service Remuneration System (SSPA), Payroll 2.0, Clinic Panel System and so on.

## **Basic skills required**

### **Computer science**

Knowledge in areas such as application development and business skills is vital for entry-level computer scientists (Lee and Han, 2008). Additionally, the emergence of new technologies has reduced the prominence of continuous mathematics and basic science (Surakka, 2007). Furthermore, Fang, Lee and Koh (2005) discovered that employers emphasize interpersonal skills instead of employees' technical proficiencies and institutional knowledge. However, Abraham et al. (2006) noted that technical skills remain important for computer science students to secure a position. Moreover, fresh graduates who possess top-rated skills will acquire a higher market value than their competitors in the workplace (Kim, Hsu and Stern, 2006). In addition, it also emphasizes that knowledge like Enterprise Resources Planning (ERP) systems and the integration of interpersonal skills should be incorporated into the course of study (Kim, Hsu and Stern, 2006). What's more, Gallivan, Truex and Kvasny (2004) who examined the skill requirements concluded that hard skills are highly valued in job recruitment.

A survey was conducted to obtain more insights into the skill sets that compared the differences between perceptions of faculty and industry leaders on the importance of various skills for entry-level. The skill sets were then categorized into 5 divisions: (a) technical skills, (b) organizational skills, (c) personal skills, (d) interpersonal skills and (e) experience and GPA. Besides, the results surprisingly revealed that the perceived average importance between faculty and industry leaders has no notable difference. Both faculty and industry leaders classified the importance of categories in the following decreasing sequence: (1) interpersonal skills, (2) personal skills, (3) technical skills, (4) organizational skills as well as (5) experience and GPA.

### **Industry**

Technical skills are essential in the information technology and computer science industries. This includes logical use of programming languages like C++, Python and Java, understanding database structure; learning debugging systems; security awareness and important analytical and logical skills in the industry. Next, soft skills such as problem-solving, communication skills, knowledge of Software Development Life Cycle methodologies and leadership harmony are equally important skills in the industry. Additionally, knowledge of Software Development Life Cycle methodologies like Agile and tools like GitHub and GitLab ensures adaptability to industry requirements. Lastly, make up some time to participate in activities and explore pursue opportunities yourself to improve skills.

## **Reflection**

### **Tan Jun Quan:**

After listening to this talk, I understand that the essential skills of programming are important when we are doing the tasks using different programming languages.. In my first year, I will gain the basic knowledge about programming. In the second year, I will try to learn new things like network, database, web development and others. In the third year, I will secure an internship to gain some industry experience. In the fourth year, I will either pursue higher studies or apply for jobs in a company.

### **Wong Jia Kai:**

Before listening to the talk, I considered the most important things is proficiency in programming language or debugging skills. But after listening to the talk, I learned that there is more knowledge that I need to be handed. From the speakers, I understand a lot of the situation and some needed skills about our upcoming internship. Therefore, I plan to improve these skills like communication skills and cooperation skills through our tasks for preparing. Besides that, I will also try to learn how to use technical software like ChatGPT, Photoshop or Github correctly and efficiently because these can efficiently help me to complete my tasks or activities.

### **Tien Wei Sheng:**

I learned the importance of technical skills and soft skills through this talk. Computer science over the next four years, I will build a technical foundation for logic to use the programming languages like C++, C, Hypertext Preprocessor (PHP) and Python. Before the internship, I will improve my communication skills and leadership skills or team collaboration through participating in activities. Then, start as early as possible to find internship or job opportunities. Lastly, I will learn about emerging technologies and prepare to overcome future challenges.

### **Neoh Sun Hong:**

The talk has profoundly reshaped my thinking in the field of computer science. Over the upcoming four years, I am committed to achieving success in my studies. Firstly, I am going to set clear goals that enhance my skills and prepare me for the workplace. To expand my opportunities and knowledge, I plan to engage regularly with my seniors and lecturers throughout my time at the university. These connections will provide me with access to valuable study materials and insights from their personal experience. Moreover, I will prioritise skill development by actively joining clubs, participating in industrial training, and taking online crash courses. Additionally, maintaining good self-discipline is crucial to ensure that I stay on track with my academics. To manage my time effectively, I will construct a schedule and hold myself accountable. However, there might be several challenges along the way to success, but I am prepared to tackle stress and deal with obstacles. In a nutshell, I firmly believe that by following this strategy, I will achieve my goals and succeed in the computer science field.

## **References:**

- **Abraham, T., Beath, C., Bullen, C., Gallagher, K., Goles, T., Kaiser, K., and Simon, J.** (2006). "IT Workforce Trends: Implications for IS Programs." *Communications of the Association for Information Systems*, 17, 1147-1170.
- **Lee, C. K., and Han, H.-J.** (2008). "Analysis of Skills Requirement for Entry-Level Programmer/Analysts in Fortune 500 Corporations." *Journal of Information Systems Education*, 19(1), 17-27.
- **Surakka, S.** (2007). "What Subjects and Skills are Important for Software Developers?" *Communications of the ACM*, 50(1), 73-78.
- **Fang, X., Lee, S., and Koh, S.** (2005). "Transition of Knowledge/Skills Requirement for Entry-Level IS Professionals: An Exploratory Study Based on Recruiters' Perception." *Journal of Computer Information Systems*, 46(1), 58-70.
- **Kim, Y., Hsu, J., and Stern, M.** (2006). "An Update on the IS/IT Skills Gap." *Journal of Information Systems Education*, 17(4), 395-402.
- **Gallivan, M., Truex III, D., and Kvasny, L.** (2004). "Changing Patterns in IT Skill Sets 1988-2003: A Content Analysis of Classified Advertising." *Database for Advances in Information Systems*, 35(3), 64-87.