FACULTY OF COMPUTING
UTM Johor Bahru

SECP 1513: Technology Information System

Semester 01, 2024/2025

ASSIGNMENT 3: SKILLS IN UNIVERSITY AND INDUSTRY

Section	:	03
Team Name	:	InfiniteTECH
Team Members	:	1. Chua Kai Loon *(A24CS5071)*
		2. Khairunnisa Binti Mohd Hazani *(A24CS0095)*
		3. Muhammad Adam Ashraff Bin Zamri *(A24CS0119)*
		4. Muhammad Hafiz Bin Reepei *(A24CS0133)*
		5. Tyler Chok Ke Qing *(A24CS5068)*

ABOUT THE SPEAKERS

MR. NIK MOHD HABIBULLAH - The Chief Executive Officer of Micro Semiconductor Sdn. Bhd. He holds a degree in computer science and completed his internship at Perpustakaan Sultanah Zanariah. He was the manager at NI Solution which focused on business and product development. He is known for producing Malaysia's first locally made IoT product and is co-founder of GetMeHired which helps job seekers achieve their dream jobs and aims for fresh graduate students to create a professional Curriculum Vitae that aligns with industry needs. He also developed the Dialysis Manager to enhance hemodialysis center services.

MR. MOHD HAKIMI IQMALL - One of the current Information Technology Officers and Project Manager at UTMDigital. An alumnus of UTM, he completed both his diploma in Computer Science (Multimedia) and a degree in Computer Science (Graphic & Multimedia) at UTM KL and UTM JB. His professional journey includes roles at ME-Tech Solutions Sdn. Bhd., Okakichi Sdn. Bhd., UTM Research Computing, and UTMDigital. Some of his notable projects in UTMDigital include RAIDS 4.0, Payroll 2.0, and Integrity System.

SKILLS REQUIRED FOR COMPUTER SCIENCE

Computer Science is diverse in technical and non-technical especially for skills requirements. Mastering all fundamentals of programming languages like Python, C++, JavaScript and implementation using GitHub and Visual Code. All these skills are vital requirements to be an expert in computer science and to better oneself in the field. Skills about databases, system framework, cybersecurity and management are also important for problem solving. Soft skills, critical thinking and the ability to understand Waterfall and Agile Models are as important as other skills to gain the ability to lead and work well with teams. Emerging technologies like Blockchain and Artificial Intelligence (AI) are additional skills that can help to sustain in computer science in the future. Skills gap is also one of the crucial parts that can impact graduates in the industry, especially amongst Information and Communication Technology (ICT) workers. Integrating these skills with regular updates from high profile corporate and maintaining two way industry academia communication as seen in India, is highly recommended for producing successful Information System (IS) graduates that are better suited to real-world problems (Suhaimi et al., 2012, p. 86).

SKILLS REQUIRED BY INDUSTRY

The modern-day industry does not only focus on the degree one holds during applications but also emphasizes an individual's skillset, including but not limited to security awareness, which is important for protecting systems from cyber attacks. In addition, knowledge of system frameworks is crucial for building software applications. Communication skills, which play a crucial role in gathering requirements, planning, and bridging gaps between stakeholders, developers, and end-users are also equally important. According to Cheryl et al. (2009, p.354), faculties place great emphasis on communication skills and database skills

compared to IT managers. Additionally, creating clear documentation and reports is important to ensure understanding and keep the project on track. Finally, leadership and team collaboration are vital throughout all phases to coordinate and align team efforts. Together, these skills reflect the dynamic needs of industries in today's fast-evolving technological landscape.

REFLECTION

CHUA KAI LOON - I will emphasise on balancing my foundational knowledge with practical application. Working on projects has not only enhanced my technical skills like coding but also improved my critical thinking and collaborations abilities. I plan to seek more opportunities to expand my perspectives and knowledge in the field of computer science.

KHAIRUNNISA BINTI MOHD HAZANI - I plan to develop a strong foundation by mastering core concepts such as data structures, algorithms and databases, while also building programming proficiency in languages like C++ and Python. Also, I aim to gain practical experience by working on projects and pursuing internships to enhance my skills.

MUHAMMAD ADAM ASHRAFF BIN ZAMRI - I intend to master programming, data structures, algorithms, and mathematics. I also aim to intern and work at a company that provides more practical experience in handling big databases, and artificial intelligence. Furthermore, staying updated with emerging technologies like Blockchain will be a priority.

MUHAMMAD HAFIZ BIN REEPEI - I need to keep updated with all new technologies that evolve quickly, which can be as continuous learning to gain valuable skills. Hence, I must connect with peers, professors, and industry professionals to not miss any opportunity to improve my skills in the future.

TYLER CHOK KE QING - I will strive to continuously enhance my knowledge in the field of IT and computer science, learning more about programming and other related technologies to better myself. With the rise of AI, I will look positively on its impacts and understand its potential usage and capabilities and utilize it advantageously to increase my productivity.

REFERENCES

Cheryl L. Aasheim, Lixin Li & Susan Williams. (2009).

'Knowledge and Skill Requirements for Entry-Level Information Technology Workers: A Comparison of Industry and Academia', *Journal of Information Systems Education, Vol 20(3).*https://jise.org/volume20/n3/JISEv20n3p349.pdf

Suhaimi, M. A., Hasan, M. R., Hussin, H., & Shah, A. (2012).

'Information and communication technology workforce employability in Malaysia', *Campus-Wide Information Systems, 29*(80-88). https://www.emerald.com/insight/content/doi/10.1108/10650741211212340/full/html