TALK

INDUSTRIAL

PREPARING FOR ENTREPRENEURSHIP IN IT

SPEAKER'S EXPERIENCE AND ESSENTIAL SKILLS AND STRATEGIES FOR UNIVERSITY STUDENTS

REFLECTIONS
HOW WILL YOU BE SUCCESSFUL IN COMPUTER SCIENCE IN THE NEXT FOUR YEARS?

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INDUSTRIAL TALK 2 17 DECEMBER 2024

1. INTRODUCTION

The transition from university to the workplace requires students to develop both technical and interpersonal skills to meet industry demands (Habibullah, 2024). Competencies like programming, tools such as the Internet of Things, Figma (IoT), and Jira, along with communication and teamwork, are key to employability (Jackson, 2016; Kember, 2008). Internships and projects help bridge the gap between education and industry needs (Andrews & Higson, 2008).

2. DESCRIPTION OF THE SPEAKER EXPERIENCE

Nik Muhammad Habibullah has built a multifaceted career in artificial intelligence (AI), the IoT, and entrepreneurship. He developed innovative methods for classifying academic materials, advanced IoT solutions like DatSINI, and created portable servers to maintain dialysis center operations. As a research officer at Universiti Teknologi Malaysia (UTM), he contributed to academic and technological progress. He also founded "GetMeHired," a company dedicated to helping fresh graduates by facilitating employment, offering coaching, and developing Curriculum Vitae (CVs) that satisfy Applicant Tracking Systems (ATS) criteria.

3. SKILLS REQUIRED IN COMPUTER SCIENCE

3.1 PROBLEM SOLVING

Problem-solving and logical thinking are essential for effectively addressing complex problems. Logical thinking helps break problems into smaller, manageable components, making it easier to analyze and address each part systematically. This approach is essential in debugging software, optimizing systems, and designing efficient algorithms.

3.2 TECHNICAL SKILLS

Proficiency in languages such as Java and Python is crucial. Specialised tools vary by subspeciality, from Wireshark for network specialists, Adobe Illustrator for graphic designers, to HyperText Markup language (HTML) and Cascading Style Sheets (CSS) for web developers. All roles require knowledge of data structures, algorithms, Agile development processes, and version control systems such as GitHub.

3.3 SOFT SKILLS

Communication, teamwork, flexibility, and ongoing learning are essential skills. Teamwork fosters collaboration in achieving common goals, while flexibility allows professionals to adapt to changing technologies and requirements. Continuous learning ensures they stay updated with industry advancements and remain competitive

4. SKILLS REQUIRED BY THE INDUSTRY

4.1 ORGANIZATIONAL AND MANAGERIAL SKILLS

Understanding business functions and aligning technical skills to organizational goals.

4.2 PERSONAL SKILLS

Strong communication skills, teamwork skills, leadership skills and problem solving mindset.

4.3 PRACTICAL EXPERIENCE

Internship and relevant work experience, strong academic foundation with a focus on IT-related courses.

4.4 ADAPTABILITY TO CHANGE

Which means being open to new challenges, adjusting to different work environments, and continuously learning, including embracing change and working in diverse teams.

4.5 CAREER RESILLIENCE

Which is the ability to adapt to challenges, recover from setbacks, and maintain motivation to pursue long-term career growth.

5. REFLECTIONS

1. "After listening to the industry talk, I grew aware of the importance of honoring both technical and professional abilities to succeed in computer science. Over the next four years, I will focus on key areas, keep up with emerging technologies, and participate in university projects, internships, and collaborative activities to gain real-world experience. I will also prioritize developing problem-solving skills and creating a solid CV that meets industry standards." **- Tagwa**
2. "Listening to this industry talk gave me valuable insight into the importance of developing both technical and soft skills during my degree years. I plan to master programming languages and important software tools. As well as applying for internships and jobs from my third year, to avoid the competition, and focus on developing a CV as it is the most important factor when applying to companies to get hired." **- Leena**
3. "One key takeaway for me was that Nik Muhammad Habibullah's career has inspired me to pursue a diverse range of opportunities. His experience in AI, IoT, and entrepreneurship shows the value of exploring different fields and staying current with emerging technologies . By embracing lifelong learning and staying curious, I can navigate my career path with confidence and creativity." **- Hodan**
4. "After listening to the talk, I feel more aware that the emphasis on practical learning experiences, such as internships and real-world projects, resonated with me. I understand how these experiences bridge the gap between what we learn in class and what is expected in the industry. By seeking more internships, I can gain hands-on experience that enhances my employability." **- Raghad**
5. "Upon listening to this talk, I plan to focus on adapting to emerging technologies like AI and IoT while continuously improving my technical skills. Gaining practical experience through internships and projects will help bridge the gap between academic knowledge and industry needs. I'll also refine my CV formatting and application strategies to align with industry expectations, ensuring my skills are effectively communicated to potential employers." **- Mathaba**

6. REFERENCES

1. Nik Muhammad Habibullah. (2024). Industry Talk on Skills in University and Industry. Universiti Teknologi Malaysia
2. Aasheim, C. L., Li, L., & Williams, S. (2009). Knowledge and skill requirements for entry-level information technology workers: A comparison of industry and academia. Journal of Information Systems Education, 20(3), 349-356.