

# PROJECT MANAGEMENT & *SYSTEM DEVELOPMENT*



## GROUP

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# SPEAKER'S EXPERIENCE



Ts. Hj. Abdul Alim currently serves as the Head of Technology and Innovation at Serunai Commerce Sdn. Bhd., where he leads the development of digital solutions for halal product verification and compliance. He is a UTM alumnus, graduated around 2014–2015. He brings a decade of experience spanning multiple technology firms, specializing in Project Management, System Development, and Agile Methodologies.

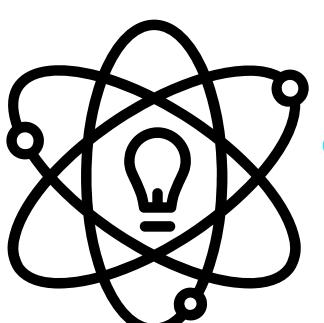
Reflecting on his early career, Mr. Alim admits to initially underestimating the critical role of management and documentation during his studies, which led to significant struggles in his first three years in the industry. This experience now drives his mission to bridge the gap between academic theory and practical application for the next generation.

His current advocacy focuses on Agentic Coding, urging students to adopt a success formula of 60% Fundamental Knowledge (SDLC & Architecture) and 40% AI Assistance (using tools like Cursor AI) to remain employable and innovative in a rapidly evolving tech landscape.

## SKILLS REQUIRED BY COMPUTER SCIENCE

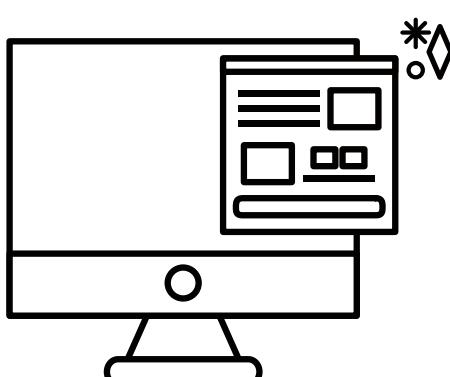
To move from simple tasks to a professional level in computer science, people should use a structured Software Development Life Cycle (SDLC) approach to networking means starting with a detailed "Analysis" to understand user needs and traffic. This is followed by a "Design" phase where you plan secure network structures, such as firewalls and encrypted tunnels, to make sure the system does not crash under heavy use. Instead of using inflexible methods, you should work with Agile "sprints" to improve the network bit by bit and respond quickly to security threats. Because technology evolves rapidly, staying competitive requires the mindset of a methodical troubleshooting style that tests the system layer by layer (Pressman & Maxim, 2014), from physical connections to the application level. When coding, you can use AI tools to help write scripts, but you must remain the "brain" who understands the whole system which aim for a balance of 60% basic knowledge and 40% AI help. Beyond technical skills, it is vital to develop soft skills like teamwork and clear report writing. Finally, getting an internship is the best way to connect your studies with real world experience and prepare for a successful career (Sommerville, 2016).

## DEFINITION



### System Development

represents the disciplined application of the Software Development Life Cycle (SDLC), which the speaker described as the core foundation of a technology career rather than a purely theoretical concept. It follows a structured process from analysis to maintenance, where each phase plays a critical role. Although artificial intelligence tools can accelerate coding tasks, human expertise in system architecture remains essential for developing scalable and high-quality systems.



## SKILLS REQUIRED BY INDUSTRY

The technology industry nowadays expects computer science candidates to bring more than just coding ability. Employers want solid foundations in system development. They should understand the whole lifecycle from planning and requirements through design, development, testing, deployment and maintenance. They also value project-management skills that help you organise work, manage time and coordinate teams so projects actually finish well. Agile ways of working are generally preferred over traditional Waterfall because Agile accepts change, encourages teamwork and delivers continuous feedback, which better reflects real-world projects (Beck et al., 2001). Finally, the smart use of Artificial Intelligence(AI) is now essential, candidates need strong programming, architecture and problem-solving skills to use AI as a productivity tool without becoming over-reliant on it. In short, the ideal candidate combines technical depth, good project management, adaptability, teamwork and disciplined use of AI.

### Project Management

focuses on effective planning and coordination to manage complexity within team-based projects. This process involves aligning various team roles and adopting flexible methodologies to ensure project success (Berkun, 2008). Furthermore, the industry places a high value on "peopleware", the soft skills of teamwork and communication, which are often as critical as technical depth for a project to finish well (DeMarco & Lister, 2013).

# SELF-REFLECTION

## 1 Darren Chua Boon Yee

I realized that success in computer science extends beyond technical knowledge alone. Over the next four years, I plan to strengthen my programming and system development skills by practicing on platforms such as GitHub, LeetCode, and structured online learning courses. In addition, I aim to apply project management concepts, including task scheduling and requirement analysis during group assignments. By working collaboratively in teams and managing deadlines, I can better simulate real industry environments. This talk encouraged me to adopt a mindset of continuous learning and adaptability, which will be essential in preparing myself for real-world challenges in computer science.

## 3 Tan Yu Kai

To succeed in computer science over the next four years, I aim to balance my university studies with hands-on experience. I will start by building a solid understanding of math and algorithms, then use those skills to work on personal coding projects. Beyond just technical skills, I plan to join the computer science related community or clubs by participating in hackathons or ctf and seeking internships to improve my teamwork and communication. By staying curious and updated about new trends like AI and managing my time effectively, I will turn what I learn in the classroom into a professional career in computer science field.

## 2 Pon Xuen Lin

In next four years, I will improve my programming techniques, not only read for exam but practice to understand because understand how it works is more important than getting "A" in exam. Instead of just reading lecture notes, I will verify my understanding by writing code for every concept learned and solving related problems on platforms like LeetCode or HackerRank. Besides, I also plan to involve myself in some club in UTM such as CyberX to gain some hands on experience and develop my soft skill and leadership by communicating with others. Moreover, I will maintain a 'living resume' and a GitHub portfolio. I plan to document my C++ projects and club activities immediately as they happen to increase the chance of getting offer when internships.

## 4 Chew Jian Hui

Success in computer science industry requires focusing on strong fundamentals rather than just memorising for exams. In these four years of study, project-based subjects like SECP1513 which give exposure to system development and project management must be taken seriously, as they are essential industry skills. Agile mindset must be adopted by staying flexible, accepting feedback, and continuously improving my work. I will also use AI as a support tool while strengthening my own problem-solving, logic and system design abilities, making sure I understand what I build and why it works. Beyond classes, I will explore new technologies, work effectively in teams, and stay consistent in my learning so I can graduate as a capable and competitive computer science student.

## 5 TAN IRENE

I aim to consistently improve my technical skills through practice and real projects to succeed in computer science. I will focus on learning new technologies, system design, and programming concepts. I aim to explore new technologies and stay updated with current trends in the industry. I also want to improve my communication and teamwork skills through group projects. By being disciplined and dedicated to learning, I plan to build a solid foundation and prepare for future challenges in the computing industry.

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