

*Oh No! Totally New Skills!*

*Date: 09.MAY.2025☀*

**Describe** In the first two weeks of this unit, our group was asked to rank our preferred projects based on each member's professional background. Only two of us had prior experience working full-time in IT before starting our master's, so we selected projects that would allow us to make good use of the skills we had learned at QUT. Despite our preferences, the teaching team assigned us a project focused on processing geophysical data and building an embedded large language model (LLM) interface. None of us had experience in geophysics or LLM development, so we quickly realised that the project requirements did not match with our existing IT knowledge.

Sadly, the teaching team assigned us a project focused on processing geophysical data and building an embedded large-language-model interface. None of us had experience in geophysics or LLM development, so we soon recognized that the project requirements did not match our existing IT knowledge. We decided to send an email to the teaching team trying to ask if we could be assigned another project that may be more suit for our team. Finally, we got a rejecting reply immediately says that they through this project is highly adopted our majors.

Upon seeing the project details provided by our client OREFOX, we discussed as a group how best to adapt. We reviewed the project brief in detail, identified the key gaps in our skill set, and began researching geophysical-data workflows and LLM integration techniques. Although the topic was unfamiliar, we committed to closing the gap by dividing up background reading with ChatGPT and mapping out a project plan for each member.

**Interpret** I reckon this experience was a huge challenge for both our team and myself. As an IT professional, it really showed me how important it is to stay adaptable and open to learning things outside my major, cybersecurity. Even though the project was not related to what we are familiar with, it reminded me that in information technology field, we often have to deal with unexpected tasks such as combination errors between frontend and backend; integrating trained models to others etc. and being able to pick things up quickly is part of the job. Not only professional skills but also task assignment within our group is a hard issue. Consider we are all international students; we can only communicate with each other's in English. At this point, I truly become award that my English level is not as strong as my other team partners. So, it made me feel like I am not a fully qualified team member in this group.

**Evaluate** While I met a lot of difficulties with this project, it was a valuable opportunity to preview what my future might look like as an IT worker. It gave me a realistic sense of the challenges I might encounter in real-world projects such as working outside my area of expertise, dealing with communication barriers, and processing multiple tasks at the same time. I think this experience helped me grow, not just technically, but also in terms of teamwork and resilience especially in my last academic mouth.

It somehow changed my plan after graduation, especially in terms of seeking my first full-time job. This experience made me realise that I should not just focus on roles that match my current skills, like cybersecurity, but also consider opportunities that challenge me to grow in new areas, like data analyst. It encouraged me to be more open-minded and better prepared for diverse responsibilities in the IT industry.

**Plan** Based on this experience, I plan to sign up for a course that teaches how AI can be applied in data analysis after my final exam in Taiwan, as it is a global trend and highly relevant to the future of IT. I want to build a stronger foundation in areas like machine learning and data processing so that I can be better prepared for side projects like this one. I'll look for short-term online courses on Coursera or in-person classes offered by reliable organisations to help me get started and certified.

Studying English and French is also part of my future plan. After gaining 2–3 years of work experience in Taiwan, I hope to work overseas as a senior IT professional and leave my hometown once again to pursue new opportunities.

### *Lost Labelled Data Sets!*

*Date: 12.MAY.2025* ☁️💧

**Describe** After we collaborate as a team for this project, things have been quite busy and crazy. Initially, we were instructed to train GeoTIFF data using convolutional neural network (CNN)-based object detection architecture (e.g., Faster R-CNN, YOLO, or Mask R-CNN) trained on known porphyry signatures. Therefore, to achieve this task, we need to labelled data to feed that models, even though we have claimed the labelled data for two or three weeks, they eventually ask us to use unsupervised models for training after I post the question asking if we can use Autoencoder on this part on Notion workplace.

**Interpret** I think this experience points out the importance of adaptability and clear communication in real-world IT projects. We should ask earlier whether we can use unsupervised models. As a pre-IT professional, I learned that technical requirements could shift unexpectedly, and it is essential to track clients' communication and project progress. Initially being asked to build supervised models and later being directed towards unsupervised methods challenged our assumptions and forced us to move on quickly. It also reminded me the plan does not always work, and we should be able to revise it on time, like suggesting the use of autoencoders as a backup plan suggested by myself, which can change our project direction a bit but also push it to move on successfully. This episode taught me to not only rely on technical skills but also soft skills to contribute strategically and communicate effectively within a team.

**Evaluate** This experience was very valuable to me, both technically and personally. Despite it being very challenging for me to follow up with my teammates, luckily, I have a good team leader, a technical leader, and two friendly team members to collaborate with, so I take things as they come! Just report everything honestly to our unit tutor and keep trying to contact our client politely. We may make some mistakes in this process, but we have already done our best, so there is no need to blame ourselves or even any of the team

members. In addition, this experience also made me realise that I prefer to be assigned specific tasks for me to complete by certain dates instead of being on standby anytime or on call during the working hour, which makes me feel like I'm running around like a chicken with no head. Personally, as an ENTP of MBTI type, it really makes me anxious since I always enjoy completing specific tasks both in my public life and personal life, instruction as clean as possible is very helpful to me. So, I will definitely keep an eye on this gap when I start to look for a full-time job next month. Like finding our life partner, seeking a job should be careful and patient so that we could filter out people or things that could toxic us in the future.

**Plan** If time goes back, I will 100% ask about applying unsupervised training models and/or other solutions earlier than this time, one or two weeks in advance. Time management is one of the best things in work, and efficiency is the other important point. Without enough time, we cannot hand over our result with quality and company reputation, which impacts everyone in this organisation's future a lot, as well as my personal sense of responsibility. Furthermore, things are changing in real life; as a result, we should not only rely on a single plan without any backup plans. Similarly, people's public life and personal life easily influence each other; a qualified personal life after working hours is equally important for good work performance. I should also figure out this field in the future.

*What should I do next?*

*Date: 15.MAY.2025* 

**Describe** Why is security usually put behind? At the beginning, I thought that I could finally play an important role as a cybersecurity expert in this project during my final semester, but unfortunately, that was not the case. I came to realise that security is often treated as a lower priority compared to other technical aspects, such as UI/UX design or model development. Eventually, like I mentioned in the last part, our project has been significantly delayed a few weeks; we have to reduce our overall tasks to complete our project at least. Since we are only two weeks away from submitting this project, security consideration is the first thing that we need to downgrade and reformulate, as it is not like UI/UX and model training that impact the whole project running and presenting.

**Interpret** This experience helped me understand the reality of working on IT field, where competing priorities often shape technical decisions. As a cybersecurity student, a pre-IT worker, I had hoped to make a meaningful contribution in my area of expertise. However, I came to realize that in fast-paced projects, especially those with specific assignment deadlines, security, or something is not very obvious, is often deprioritized in unusual situations, such as not enough budget or being pressed for time. I reckon this was an embarrassing but important lesson, it showed me that as an IT professional, I need to not only be technically skilled, but also strategic and flexible to achieve my tasks in a limited source range. It further reminded me that supporting for security means communicating its value clearly and integrating it early, even when it is not the team's immediate focus, I should still do my best.

**Evaluate** On the other hand, as a cybersecurity specialist, it is not only enterprise-level vulnerabilities having a lot of issues that requiring us to consider but also the broader regulatory frameworks and guidelines from the information security side that we need to obey. Cybersecurity frameworks typically provide comprehensive guidelines across multiple domains but often do not prescribe detailed implementation steps (Management of Enterprise Cyber Security: A Review of ISO/IEC 27001:2022, 2023). Therefore, another challenge we face is determining how to interpret these high-level guidelines and translate them into practical, organization-specific security controls. This requires us have up to date information regarding local policies and high familiarity to various protocols and frameworks, both of which vary depending on our specific IT security role and job responsibilities.

**Plan** From my point of view, as a graduate student jump into cybersecurity field, the best way to get familiar this profession is to study and get the official certificates which are issued by reliable organizations with good repudiation, such as The International Information System Security Certification Consortium (ISC2), Cisco system, CompTIA etc. They are also recognized by many big companies and universities worldwide.

“Cybersecurity positions are more likely to require certifications than other information technology (IT) jobs. One-third (35%) of cybersecurity jobs call for an industry certification, compared to 23% of IT jobs overall” (Knapp et al., 2017, p. 102). This statement also highlighted how getting certified important is, especially to new workers.

Consequently, I have decided to study for and obtain the CCNA and Security+ certifications as my entry tickets after completing my final exams, so I can better prepare myself to contribute to the cybersecurity field. At the same time, I aim to maintain a broad perspective of the entire IT landscape, because of understanding how different domains interact is essential for effective cybersecurity practice. I hope that I can be able to an independent cybersecurity engineer in the near future, and against hacker attacks around the world.

## Reference

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