This template does not include complete instructions. Review the assignment description in the course carefully before beginning.

# Part A: Experiences this term (40%)

1. Show how you will add your experience this term to your engineering resume:

For this work term, I worked as a mobile quality assurance for a software company. I main duty for this job is to manually test different aspects of the company’s mobile client for their software, report to the system is any bugs are found, and communicate with developer and business analysts to ensure that the issue is verified to be fixed in production. I need to plan and design my testing process, then identify any specific issues occurring in the application. After I need to write a detail description on how to reproduce the issue and report it to the developer. Once the developer fixes the issue, I still need to verify that it is indeed fixed, and the fix does not introduce any new issues.

There is lot which I can take from this experience and add it to my resume. First, this job helps me to understand software development and bug tracking process for both font and back end. I also learned business analysts flow and logic for software. Second, this experience greatly enhanced my communication skills. For written communication, I must write reports on tasks which I am responsible for the issues I find. The reports need to detailed and understandable for others to clearly communicate the specific issue. I also constantly talked to developers and business analysts to ensure that there are no misunderstandings in the process, and the feature are implemented exactly as the business requires. Lastly, I gained technical experience on software logics, user reports and server logs, which are helpful on my resume.

1. Answer each question below as you would in an interview.
2. In your work experience this term, how you have applied engineering fundamentals in one of the following: analysis, design, or synthesis.

In my work experience this term, I have applied engineering fundamentals in synthesis. During this work term, I applied my engineering studies and principles in my work. The situation was the company has a new application which is develop and tested by a separate team, however some of our developers need to help with task for it to get finished by the deadline. My task was to review the issue found by the other team and making sure that they are properly addressed. First, I assessed all the issues and noted down the step to reproduce them. I also communicated with the other team for any ambiguity in the description. Then, I reviewed all these issues with our developer for the task. Then I coordinated with others so that all the takes can be solved accordingly. The result is that all the fixes on our side are properly implemented without becoming an issue in production.

1. Respond fully to **two** questions below (you may delete the questions you do not answer)

* In your work experience this term, how you have applied engineering fundamentals in one of the following: testing methods or implementation methods.

During my work term, I applied engineering fundamentals in testing methods. As a quality assurance it is necessary for me to perform a variety of testing to ensure the product’s quality. Once I needed to test a feature about a specific popup for different game types and setting. My task was to ensure that the popup is displayed correctly for all different possibilities. The actions I took was to first identify all the situations that I need to test, including devices, graphic engine setting, game type, and user setting. Then I planed out my testing using a spread sheet to keep track of my progress and record any issue I may encounter. I preformed by testing case by case following my planning and analyzed the scenarios which the popup was not displayed as intended according to the testing guidelines. In the end, I was able to discover several issue which I reported and verified fix, to ensure a better user experience for our application.

* Communication Skills: In your work experience this term, describe how you communicated your engineering ideas through written work, oral presentations, and presentations to the general public.

In this work experience, I communicated by work through written work. The situation was that we need to implement a new payment method in our client. My task was to document the flow of the payment process, making sure that the communication between front-end, middle tier, and back-end works as intended. After I finished testing, I need to summarize my findings into a report. This situation was complex because involves a range of different devices, as well as communication between the devices. I carefully analyzed the different scenarios, and created a detailed documentation with all the possible user cases, devices, and specification alone with examples and screenshots of the situation. As a result, this report helps others to understand to flow of the entire process, which makes the test process more efficient.

# Part B: Looking Ahead (60%)

**PD20 Prompt** (choose **one**, and delete the other prompts)

B. Discuss a concept introduced in PD20 that has changed how you will approach your classroom learning.

One concept introduced in PD20 that has changed how I will approach your classroom learning is the concept of bias. Bias is a disposition we have when we gather information, and this also includes when we are studying. Bias is affecting us in multiple aspects when we are studying, including learning, reviewing and problem solving.

When I am learning new knowledge during lectures, I am likely to be affected by inattentional blindness. It is very easy for one to miss information during a fast pace lecture. Often time they would not even notice the fact that they missed information. This is common because it be caused by multiple reasons, like not paying attention, think about other topics, or even due to note taking. Furthermore, when reviewing I am often affected by interpretive bias. Sometimes, I will focus too much reviewing what I think is important, ignoring some small concepts that are not as significant, resulting me losing marks on these concepts during a test. Interpretive bias will affect the significance I assign to the topics that I review. Lastly, attentional bias affects me during tests and exams. For some questions I will go down one path too deep without thinking about other solutions to the question.

With this concept in mind, I will be more careful to classroom learning. Knowing the fact that I will miss information when learning will make to become more careful. I will treat each topic in the course equally important. In before, I believed that focusing on some of the core topics is enough for classroom learning, however that is a result of my personal bias towards learning. I will expect this to impact myself towards a better learning attitude. I will expect to pay more attention in class, checking for the topics after class, and focus more on details when reviewing the materials.

In summary, the most valuable thing that I learned from this concept is how bias plays an importance role in our daily life, not only in classroom learning. Going forwards, I will pay attention in places where bias would affect my decision, and I will think one step further before I draw my conclusion.

**PEO Prompt**

Thinking about your experiences in the workplace this term, and the engineering experience you wrote in Part A, which gaps did you notice in your knowledge and/or experience? What skills and abilities do you want to focus on for development (note that you can focus on further developing areas of strengths as well as weaknesses)? What kind of job will you look for in the future? What will you be looking for in your next co-op job?

There are several gaps which I noticed during this workplace experience. First my communication. There are several instances where the developers had to come and ask how to reproduce a certain issue, due to my description being unclear. This is mainly caused by my inaccurate word choice. For example, if I describe an issue as “app will close”, it is unclear for the developer to understand how the app actually closes and the potential cause of it. In future, it is important for me to proof read my writing from the reader’s perspective, rather than my own. Another gap is teamwork. Although I had to collaborate with a variety of different people during my work experience, I lacked the experience of working as a team towards a common goal. Working in a team requires a different attitude and mindset comparing to my current experience. It is crucial to have this type of experience for my future development.

There are also skills and abilities that I want to focus for development. One of which is my technical skills. A quality assurance roll does not require much technical background, however technical skills are critical for any other engineering fields. It is important for me to prepare ahead for any technical skills which I would need for my future work opportunities. Over the course of this work term, I am already preparing myself by learning different knowledge in math, physics, and computer science. Another skill I need to develop is management. This skill includes management for different aspect, like time management, work management, and leadership skills. This skill in important when working on major engineering projects. It is a skill for me to develop for any future work experiences.

For my next job, I would want to work as a hardware engineer. This a field that design, develop, and test computer components. To be more specific, I would like to work in disciplines that focus on the connection between hardware and software, such as bios and low-level drivers. The ideal goal for me is to work at companies such as Nvidia, AMD, or intel that focus on personal computers and servers, however I will also seek for opportunities at companies for other hardware devices like Huawei or LG, for example. To achieve this, I need technical skills in math, programming, and circuits. It also requires all fundamental engineering skills including planning, designing, and evaluating.