# WKEXP 904 Work Term Report

Arun Woosaree

XXXXXXX

July 31, 2020

Work term 4

Computer Engineering Software Co-op

Coordinator: Dustin Edwards

# 1 Introduction

The purpose of this document is to serve as an exercise in creating a career plan, and setting some goals. As a part of this exercise, an initial career plan was created. Then, four engineers at varying stages in their careers were interviewed. Finally, some similarities and differences in the interviewees's experiences were discussed, as well as some points raised which were unexpected or surprising. These points were considered, and the career plan was modified to mitigate any potential concerns which were raised after the interviews.

# 2 (Initial) Career Plan

## 2.1 Industry

In the wkexp902 report, I expressed interest in the Artificial Intelligence, or AI industry, and at the time of writing this report, it remains an area of interest for me.

## 2.2 Ultimate goal and how to get there

The ultimate career goal is obviously to get to a financially stable state, living comfortably, and being able to afford a reasonable amount of luxuries. There are many ways to get there, and several books claiming to share some 'secret', however, the general trend appears to be that these books tend to help the authors reach their financial goals instead of the reader. A more pragmatic approach should be taken which acknowledges the existence of uncertainty in the real world.

The first thing that should be acknowledged when making an initial career plan is that I have little experience. So, the first step should be to get in touch with experienced individuals, and ask for their advice. Luckily, that is the purpose of this report, so the first step is already done.

The next thing to think about would be what I plan to do after graduation. At this

point, there are many areas in the software engineering field that I have not experienced yet. Even though I think that right now Artificial Intelligence might be interesting, I might find out later that I find another area to be more interesting. There is no way to figure that out without first trying, so the plan for immediately after graduation is to try out working for different companies in different areas in the software engineering field. The idea is to spend 1-2 years at various companies, and switch when it is natural. For example, if I plan to move to a different city, or an exciting opportunity arises. Doing this would also have the benefit of easily building my network for people, and making that network as diverse as possible. In addition, this would have the benefit of allowing me to absorb as much knowledge as possible, keep my skills up to date (as well as acquiring new ones), and keeping me competitive in the job market.

When I find myself comfortable, I think the plan is to never stop job searching. This will allow me to stay competitive in the job market [1], while I get to work in a field that interests me. It will also keep me on the lookout for better opportunities.

## 2.3   Roles to undertake

For the first few years in my career, I plan to take hands-on roles which involve programming in various languages. The next natural progression would be to end up in various senior developer positions. After that, I could choose to take on manager roles as well. By this point, I should be in a comfortable position financially, so I could also choose to create a startup using the experience gained from all the previous years of work, or use the same experience to lead in a larger, already established company.

## 2.4   Training

The software engineering field is always rapidly changing. I would have to keep myself up-to-date to keep myself competitive in the job market. One of my goals is to work in an environment which encourages continuous learning. Ideally, learning new skills would

be encouraged at work, and the employer would provide opportunities such as attending conferences for sharing knowledge and networking.

## 2.5  Timelines

I do not have any specific timelines in mind, however, it is a good idea to have a general idea of where I would like to be in a few years. I think that I should find myself in a senior developer position within 5 years from graduation, however, there are so many variables to consider for a longer timeline like 10 or 20 years. In that time, priorities, interests, (or anything really) could change. I think around the 10-year mark I would at least like to lead a large-scale project. At this time, I will not set a specific goal for the 20-year mark, because too many things can change in that time. One thing I think I would like to keep constant however, is continuing to learn new things, and keeping myself up-to-date in the field.

## 2.6  Interests, strengths, weaknesses

My interests obviously include "programming", however as that is such a broad topic, I should probably select a few subcategories that interest me. At the moment, some technology trends I have been following are artificial intelligence, RISC-V, Rust, WebAssembly, cryptocurrency and more. There is no way to know which trends will appear in the future which will interest me, so that is for me to figure out in the future. However, in general, I think an area I might enjoy is server backends. One of my strengths is a healthy amount of curiosity and desire to learn how things work. This strength can be a double-edged sword. One of my weaknesses is being tempted by a new language or framework just because it is new, even when there is an existing solution with more community support, and better documentation.

## 2.7 Potential setbacks

Life happens, and there is no way to predict it. Situations that may arise include recessions in the economy, being laid off, and supporting a family down the line. If planned, starting a family is not a setback. Risks like the economy not doing great at certain times, and unexpected layoffs can be mitigated by following generally agreed-upon financial best-practices like maintaining 6 months worth of salary in an emergency fund that is liquid and easily accessible, but also gains interest [2]. This would also help mitigate other unforeseen circumstances.

# 3 Job Search Plan

## 3.1 Preparation

An essential prerequisite for job hunting is a good resume. The plan here is to keep it up to date, and keep track of accomplishments continuously. Even when I find myself in a comfortable position, I should remind myself to update my resume say, once every 6 months just to keep track of accomplishments.

## 3.2 Research and Networking

Another important thing to keep and maintain is my network. As part of the job searching plan, I would reach out to a few people in my network. I would let them know I am currently open for opportunities. A good idea is to have my resume reviewed by professionals who are willing to give advice. There are also online tools available which make the research and networking process easier.

## 3.3 Tools and Resources

Speaking of online tools, a good tool to use is a social media site like Linkedin, which has a focus on professional development. Platforms like these make it easier to follow up with someone I connected with at a networking event, and have the benefit of exposing the user (me) to new opportunities or topics of interest. Glassdoor is also a good tool for researching about potential positions, and for helping to decide if the opportunity is a good fit. It is also useful for checking if the salary and benefits I would be earning are at market value.

## 3.4 Potential Obstacles

Things that usually go wrong when job hunting are: lack of offers, and the opposite problem when there are multiple offers and an interview is coming up soon before the deadline of another offer. The first potential situation – a lack of offers can happen when the economy is performing poorly, or if not enough effort is being put into job hunting.

The second scenario is more tricky to deal with. Sometimes, it might not be a bad idea to ask for more time to make a decision, or to tell one recruiter that you have an offer lined up. However, that does not always work, and different approaches need to be considered on a case-by-case basis.

# 4 Interviewing Graduates

## 4.1 Where did they begin their career?

The trend here seems to be that initially, the starting points were not related to the software engineering field, things like lawn mowing, sales, construction, and consulting. However, these initial positions helped with building the interviewees' networks. One out of the four interviewees started as a software developer intern. In this respect, it would seem that I was lucky to have my first job be related to the field I am in. I have also made excellent

connections, and although my network is still admittedly small, it is a great start.

## 4.2 How long have they been working

All interviewees started work either during a co-op term at university, or after graduation. No one took any significant breaks, aside from leaving for a few months to take care of their newborn children. This seems to be in line with my plans as well. Three of them are in manager positions, while one is a software developer.

## 4.3 Promotions attained and key factors contributing to them

Promotions in most cases were attained by taking opportunities to try something new, even if it was outside of the person's area of expertise and not in their comfort zone. The appearance of new opportunities also comes with a little luck, such as being in the right place at the right time when a senior leader is retiring, or happening to be the only one with a vague idea of how to do something because it was part of a hobby project. Sometimes, however, one cannot advance their career by staying in the same spot. It seems that some interviewees achieved more desirable positions by changing where they work when they had the opportunity. My career plan seems to align well with the experiences of the interviewees. Continuously learning, keeping hobbies, and seeking out new opportunities every few years should set me up for success.

## 4.4 Type and nature of work duties/responsibilities over time

The trend seems to be starting with minimal responsibilities in a junior position. Over time, as the individual becomes more familiar with the infrastructure, they are awarded a senior developer position. When the opportunity presents itself, they took the chance to lead a project, team, and eventually ended up in a manager role. Tasks change from coding to mentoring interns, helping others, looking at performance metrics, conducting 1-on-1s to

ensure team members are healthy.

## 4.5 Are they where they thought they would be in their career? Why or Why not?

All interviewees saw themselves working in an engineering related role, and expected some form of career advancement over time. However, most of them did not begin in the software engineering field. It just happened to be an opportunity that came up, and they found it interesting. It seemed like the positions they are currently in were expected. One interviewee, however, initially saw themselves always being in a role writing code, working up to being a technical lead, but ended up in management for a technical team, transitioning to no longer writing code.

## 4.6 What sacrifices have they had to make?

Sacrifices came in a few forms:

- spending less time with family
- working more hours than are being logged
- taking a pay cut to switch to a more interesting/fulfilling job

I believe no one plans to make any of the sacrifices listed above. However, I feel that I should take care to make sure I avoid the first two as much as possible. Mental health and personal relations are important. Taking a pay cut to switch for something more interesting, while not ideal is more acceptable.

## 4.7 Where do they see themselves in 5, 10, 15 years?

In 5 years, the interviewees see themselves in roughly the same position, maybe with a promotion. In 10 years, a more senior position is expected, while in 15 years, no one has any

idea what will happen. However, everyone expressed the desire to continue learning. This echoes my original plan.

## 4.8 Significant factors they see as important in determining success

In general, the sentiment is that one is successful if they can look back and be happy with what they did. Working hard, doing the right thing, taking every opportunity to learn something new, and being satisfied with their achievements.

## 4.9 Have there been any challenges or delays in their career progression? If so, how did they overcome them?

Generally, it seems that challenges come in the form of organizational changes or lack of funding. These tend to result in changing of teams, projects, and layoffs. Events like these cannot be prevented, however, one can be ready for them by having an emergency fund. My original career plan mentioned that an emergency fund would be a good idea.

Another challenge one might face are unexpected events, like dealing with the loss of a loved one, and taking the time needed to come to terms with it. No one can prepare for such a situation, but it is important to have faith in yourself at these moments, and take the supports you need.

## 4.10 What would they do differently if they had to start again?

The interviewees were content with their life choices, and would not change what they did. One recommended me to learn about my self-worth. Make sure that the company you work appreciates your dedication, time, commitments, and value as a human being.

## 4.11    Key piece of advice for someone starting out in their career

Recommendations included:

- work life balance is important, you need it for your best work

- working long hours does not always put you ahead

- pick the brains of your leaders

- stay curious, learn as much as possible

- a good, challenging, and interesting work environment is far more important than an increased salary

- finding a good fit is important, and if the job does not fit, it does not mean you're inadequate

- when offered a challenge, consider (but not always) saying yes. It's an opportunity to stretch and learn something new

- networking is important

- when networking, it is much more important to find people you enjoy talking to. Opportunities will come naturally. When trying to force a connection, things become awkward

- find a mentor, it's helpful to have someone to learn from and guide you to choosing your own path

- try time management techniques like the 4 quadrants to stay on top of priorities and important goals

## 4.12    Surprises and Points I Have Not Considered Yet

It surprised me how consistent the responses between the interviewees were. It also surprised me how close my original plan was to the general advice of the people I interviewed.

It surprised me that some were willing to work longer hours, and not have it logged. Maybe I have not found an area which truly captivates me yet, but also a work-life balance is important to have. Priorities change over time, so this is just one of the many things to keep in mind.

## 4.13 Unexpected Issues In Career Development Discovered

Interviewing the engineers helped confirm I was on the right path with my career plan, and also helped with confirming the risks I should be aware of.

## 4.14 Changes to my career plans

I should continue picking the brains of people around me. Stepping outside of my comfort zone more often to initiate conversations with knowledgeable people seems like the next logical step. This is something I can do with my team members, leaders, and the next person I meet at a networking event.

# References

[1] J. Kleiman, *5 reasons you should always be looking for a new job*, Sep. 2015. [Online]. Available: `https://www.forbes.com/sites/work-in-progress/2015/09/28/5-reasons-you-should-always-be-looking-for-a-new-job/#26b3edbb2318`.

[2] *Personal finance for canadians*. [Online]. Available: `https://www.reddit.com/r/personalfinancecanada/wiki/money-steps`.

# People interviewed

1. Ekta Banga P.Eng.
   Manager, DevOps & Delivery at ATB Financial

2. Jeremy Smith
   Managing Director, DevOps at ATB Financial

3. Joshua Baergen
   Senior Developer at DigitalOcean

4. Ian Malcolm
   Developer at Strathcom Media