4-1 Journal: Career Choice and Artifact Update

Part One:

1. **Have you changed your career plans? If so, what prompted this change? If not, why have you remained with your original plan?**

I have not changed my career plans at all. I remain committed to a career in academia, possibly away from the field of Computer Science. However, I still want to attempt a casual career in software development or something similar. Teaching has always been a passion, and I also enjoy the prospect of being a part of a research team to contribute to the body of knowledge. At this time, I am already in touch with potential supervisors at the university that I intend to pursue my PhD at. I am also given the opportunity to participate in small ways (such as but not limited to volunteering at events and joining in as a teaching assistant). I enjoy these activities very much, and I feel very fortunate to be able to start participating in the formation of a sense of camaraderie within the team that I'll hopefully be working with.

2. **How has your thinking about your career evolved?**

Before commencing my BS Computer Science program at SNHU, I was under the impression that it would be quite easy to enter the tech field, especially in Singapore, where much is invested into digitalisation (Randstad Private Limited, 2024). However, the long hours and fierce competition were two things that I did not want to contend with. Where I live, I am very lucky that the field of academia, while it upholds its high standards, does not discount the importance of a work-life balance (Buckett, 2024).

My thinking about my career evolved with my constant desire to take the path less traveled. Whilst some may believe that I am putting myself at a disadvantage by pursuing a doctoral degree straight after my undergraduate degree, I feel that the benefits outweigh the drawbacks in that I would still be able to learn, grow and apply my skills to a multitude of other industries, as opposed to just a single one if I were to start out as a software engineer.

3. **Have you completed any research about your choice of career? How has this impacted your thinking? Have you thought about seeking an advanced degree or certification after earning your undergraduate degree?**

I have continuously evaluated my career choice on an almost weekly basis. Being surrounded by people who are also embarking on the same path, I am even more certain that this is the path I want to be on. I feel that there is much more that I can gain by contributing to existing research and working on new things. An advanced degree is inevitably necessary - I will be pursuing a PhD on completion of my undergraduate degree. As SNHU's Computer Science program does not give me the option of an Honours program or year, I have instead compensated by being a part of the community at the university I want to study at, and getting to know the researchers and current PhD students and the work that they do.

4. **Which course outcomes have you achieved so far, and which ones remain?**

Both enhancements one and two have covered outcomes 1 through 4, with course outcome 5 being the only one left for me to meet with my third enhancement. A common denominator to these enhancements is Course Outcome 2, wherein I design, develop, and deliver professional-quality oral, written, and visual communications that are coherent, technically sound, and appropriately adapted to specific audiences and contexts. This is achieved through a comprehensive ReadME document on each of the artifact repositories, which helps people understand the work that I've done. Furthermore, I've also achieved Course Outcome 1 through the use of Docker in both my enhancements so that any potential collaborators may find it easier to access and run the programs. In Course Outcomes 3, my use of Dijkstra's Algorithm and the Depth-First Search constitute designing and evaluating computing solutions that solve a given problem using algorithmic principles and computer science practices and standards appropriate to its solution while managing the trade-offs involved in design choices. Finally, I met Course Outcome 4 in my first enhancement, where I demonstrated that I was able to incorporate modern web development frameworks into my design process, which is key to my progress as a software engineer.

Part Two:

Provide an update to your instructor on your progress with each category of artifacts for the ePortfolio:

- Software design and engineering
- Algorithms and data structures
- Databases

Checkpoint	Software Design and Engineering	Algorithms and Data Structures	Databases
Name of Artifact Used	CS 210 - Programming Langauges Static Clock	IT140 - Introduction To Scripting Adventure Game	CS 250 - Software Development Lifecycle* Travel website
Status of Initial Enhancement	Completed. **Enhancement made:** - Front-end using Next JS 14, Tailwind and TypeScript.	Completed. **Enhancement made:** - Use Dijkstra's Algorithm to create a "cheat code" for players to find a simple way to get to the end of the game. - Depth First Search (DFS) for cheat mode to show answers to quiz questions.	Completed. **Enhancement made:** - Adding a database via FastAPI (Python) to the Java "website" to dynamically populate it.
Submission Status	Submitted by Sunday 21/9/2024	Submitted 25/9/2024	To be submitted on Sunday 5/10/2024
Status of Final Enhancement	-	-	-
Uploaded to ePortfolio	Updates made to ePortfolio** as I make the enhancement.	Updates made to ePortfolio** as I make the enhancement.	Updates made to ePortfolio** as I make the enhancement.
Status of Finalized ePortfolio	-	-	-
*N.B: *Changed from using the same CS 210 Programming Langauges as the concept was unclear according to comments in rubric.* ***ePortfolio will remain private as I am to be very watchful of my online presence at this time. I will be sending my final portfolio, Dockerised, and include a link.*			

References

Buckett, B. (2024, January 23). *2024 Employment Law Updates: Understanding changes and their impact*. Buckett Law. https://www.buckettlaw.co.nz/article/new-year-new-rules-how-employment-law-changes-will-affect-you

Randstad Private Limited. (2024, February 27). *Singapore's technology industry outlook and salary trends 2024*. Randstad Singapore. https://www.randstad.com.sg/hr-trends/workforce-trends/technology-industry-outlook-salary-trends-2024/