Journal Entry – Career Choice.

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Since starting the computer science program, I have not changed my career plans at all. From the beginning I have been very passionate about front-end development and web design, and even today my focus is the same. I was 12 years old when I started programming. On my computer with games and everything, most of the focus was always on the front end. However, with the degree and what has evolved as my depth of skill, I am now able to approach web design not only from a perspective of creativity but also with a strong foundation in software engineering principles, for example, data handling and even integration with backend systems, which was something I was very weak in.

I was taught that web design was about building static websites with simple programming. "Through my lens here," it says. However, over time I have learned that professional web design involves responsive layouts and accessibility. Anyone? Performance optimization with connections to algorithms and databases. My thinking has also shifted to seeing myself not just as a designer, but as someone who can psychologically understand my end users...

Yes, I have researched a lot of web design and development roles, including job descriptions, the skill set, and even industry demands. It looks like a lot of employers are looking for developers. You can give it time that interferes while writing clean and modular code. But one thing I have focused on is that front-end development has become more like full-stack development with a back end and a front end.

The course outcome that I have achieved is as far as software design and engineering. I have ended up completing my Pirate agent enhancement, where I modularized the entire project by adding testing. Building a user-facing GUI. In this way I was able to strengthen my software engineering and design practices, which can also directly be applied to my professional web development. I am still finalizing my algorithm and data structures along with my database artifacts.

| **Checkpoint** | **Software Design and Engineering** | **Algorithms and Data Structures** | **Databases** |
| --- | --- | --- | --- |
| **Name of Artifact Used** | Pirate Agent AI (Treasure Hunt Game) | Lego Dataset Dashboard | Luminary To-Do App |
| **Status of Initial Enhancement** | Completed – refactored into modular files, added MVC structure, implemented unit testing and visualization | Planned efficient search algorithms and indexing improvements | Planned MongoDB integration, user accounts, and role-based access |
| **Submission Status** | Submitted – Milestone Two artifact and narrative completed | Enhancement plan drafted, not yet submitted | Enhancement plan drafted, not yet submitted |
| **Status of Final Enhancement** | Completed – advanced features added (epsilon decay, model persistence, GUI polish) | In progress – working on data indexing, visualization, and efficient queries | In progress – implementing MongoDB persistence, aggregation queries, and input validation |
| **Uploaded to ePortfolio** | Yes – uploaded successfully | Not yet uploaded | Not yet uploaded |
| **Status of Finalized ePortfolio** | Completed – ready for final submission | Pending – will finalize after enhancements and instructor feedback | Pending – will finalize after enhancements and instructor feedback |

References

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