### **Joseph Marek**

### **Professional Self-Assessment**

As I approach the completion of my Computer Science degree, I reflect on the journey that has led me to this point, as well as my growth and development in both technical and professional aspects. This self-assessment serves as a comprehensive introduction to the skills, achievements, and goals that I have demonstrated throughout the course, as well as my aspirations for my career in the financial sector of computer science.

#### **Overview of My Skills and Experience**

I have been in the Computer Science program for two years, during which I have gained hands-on experience in programming languages such as C++ and Python, with a particular focus on scripting. These technical skills have allowed me to build and enhance a variety of projects, each of which reflects my ability to approach problems systematically, optimize code for efficiency, and implement user-centered design. One of the most significant skills I have developed is the ability to create functional and accessible applications, ensuring that the end user has an intuitive and seamless experience.

In my time in the program, I have also learned the importance of clean, well-documented code, effective collaboration, and meeting the needs of diverse audiences. These principles were especially evident in my enhancements to the treasure hunt project, where I focused on improving user interface design, optimizing performance, and integrating accessibility features. These enhancements not only improved the functionality of the project but also highlighted my ability to adapt to different user needs, particularly those requiring assistive technologies.

#### **Specific Skills Demonstrated Through Enhancements**

Throughout this course, I have worked on three major categories of enhancement that showcase my technical capabilities:

1. **Software Engineering and Design**: My work in software engineering and design demonstrated my ability to build and improve user interfaces, ensuring the design was intuitive and visually appealing. I focused on code optimization, enhancing the overall performance of the project, and ensuring the application was accessible to users with disabilities.
2. **Algorithms and Data Structures**: I applied my understanding of algorithms and data structures to improve the efficiency of my project. This included optimizing code to reduce computational overhead and refining the underlying logic to ensure the game was dynamic and challenging without causing performance bottlenecks.
3. **Databases**: Although my background in database-related courses was limited, I have demonstrated a strong understanding of how databases can be leveraged to improve software applications. I have optimized code to improve data storage and retrieval, ensuring that the game operates efficiently even with large datasets.

#### **Alignment with Career Goals**

My career aspirations are focused on the financial sector of computer science, specifically in areas such as financial technology, data analysis, and optimization of financial systems. While my degree did not include courses explicitly focused on database design and management, I sought to enhance my knowledge in these areas by applying concepts from related coursework, such as algorithms, data structures, and UI development. I believe these enhancements have strengthened my ability to develop efficient, scalable systems—skills that are directly applicable to the financial industry.

#### **How This Self-Assessment and ePortfolio Contribute to My Career**

This self-assessment and my ePortfolio highlight my ability to complete complex projects while maintaining a focus on user experience, code efficiency, and accessibility. These skills will be essential in my future career, where I aim to contribute to the development of cutting-edge financial technologies. Through the enhancements presented in my ePortfolio, I have demonstrated my readiness to take on challenges in the financial sector, using a combination of programming expertise and a user-centered approach to design.

As I continue to refine my skills and work toward my professional goals, I am confident that the experience gained from this course will serve as a foundation for future success. The projects showcased in my ePortfolio are a testament to my growth as a software engineer, and I look forward to applying these skills in the next phase of my career.

This ePortfolio is not just a showcase of my academic achievements, but a reflection of my ongoing commitment to developing high-quality, accessible, and efficient software solutions in the realm of financial technology.