Pushpa Laxman

Southern New Hampshire University

CS-499-19649-M01 Computer Science Capstone 2025

3-1 Journal: Marketing With ePortfolios and Artifact Update

Neil Kalinowski  
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Part One:

Q. How might you use an ePortfolio for the benefit of self-promotion?

An electronic portfolio, frequently called an ePortfolio, is a beneficial resource for students throughout their college experience. A resume and reflections on assignments work together to showcase a student's skills and understanding to instructors and prospective employers. It is not merely a compilation of experiences; it is a thoughtfully organized presentation that shows how job seekers and employers engage, ultimately highlighting their influence.

As a result, I can present a visual and technical representation of my finest work through a compilation of notable projects. The capstone projects I have developed showcase my skills in software engineering, data structures, and algorithm design. By showcasing my standout completed projects, contributions to open-source initiatives, and personal development endeavors, I exhibit my skills and expertise to prospective employers.

Moreover, by showcasing my coding techniques, structure, and knowledge of different frameworks or programming languages, I can demonstrate my knowledge of programming languages and my ability to write clear code. Furthermore, an eportfolio provides me with a chance to highlight specific in-demand tech jargon, increasing my chances of getting noticed by recruiters compared to other candidates who may only submit resumes or cover letters

Q. How might you mitigate risks while maximizing the marketing potential of the ePortfolio?

The online portfolio serves more than a digital resume; a well-designed one can open up opportunities, while a poorly constructed one can close them; achieving the right balance is therefore crucial. Therefore, to minimize risks while maximizing the marketing potential of my ePortfolio, I will select carefully the information I present and the level of detail I include.

As we know, there is a mutual exchange of ideas and discussions between the company and the applicant during the recruitment process and job interviews. The challenge for both employers and candidates lie in finding a balance between building trust and avoiding the over-disclosure of intellectual property. Intellectual property can be quite vulnerable throughout the interview and recruitment phase for both parties. Therefore, safeguarding intellectual property is crucial; Consequently, I would avoid featuring projects that contain confidential or proprietary details in my portfolio and instead consider using more generalized examples or describing processes without exposing sensitive information. I will showcase my skills by highlighting my strong drive, problem-solving abilities, and thorough understanding of the various components and tools necessary for effective planning and programming that I acquired during my studies. This way, I will enhance the marketing potential of my ePortfolio while also protecting myself from legal liabilities and upholding a strong ethical reputation in my job search.

Q. Describe possible downsides or risks—for instance, the risks of posting intellectual property online for public consumption.

Electronic portfolios offer several advantages over traditional paper portfolios. In addition to the ease of transferring portfolios between apps or institutions, electronic portfolios allow for greater accessibility. It can, however, be difficult to guarantee the security of content within electronic portfolios. Public sharing of work through an ePortfolio comes with the risk of intellectual property being misused, stolen, plagiarized, or unauthorized. Whether shared online through an ePortfolio or publicly accessible repositories like GitHub, sharing online opens to the possibility that their work will be used without permission.

When I post code or projects online to showcase my work, demonstrate my skills, and find a job. It is unlikely that someone could access the portfolio to alter or remove documents, but their content could be viewed and replicated.

It would be particularly troublesome if the work were created for a previous employer or if there was a collaborative project where ownership was shared. Also, its important that the portfolio is arranged in such a way that the layout looks good and shows your work in an elegant format, providing potential employers with tangible evidence of my capabilities.

Because I do not have any professional experience, I will highlight my academic projects and high-quality work skills relevant to my target career. My goal is to make the portfolio navigation as easy as possible for potential employers who will be interacting with it and make it user-friendly for them. Furthermore, divulging too much personal information could lead to uninvited communication or data security issues. In this regard, it is imperative to thoughtfully evaluate the details in the portfolio and the precision and clarity of the information provided.

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

As I have worked through the course, I have achieved several key outcomes that correspond to the academic and professional goals I had set for myself. My computing solutions demonstrate my unique strengths and abilities as a designer by demonstrating how I can optimize through modular components, select data structures creatively, and build algorithms using algorithmic principles and computer science practices, which demonstrate my skills in boosting software performance and addressing limitations effectively. I also aim to ensure the integrity and safety of the system by introducing input validation to reduce security threats such as incorrect data entry. Furthermore, I highlighted my enhancements to increase the functionality and performance of the database to provide real-time data processing and useful and valuable solutions.

However, there are still areas I am working to improve. Programming is one thing, but being a professional developer is another. It is a matter of having some experience, preferably working on real-world systems with other developers. Studying the theoretical concepts of User Interface and Design Principles would be an enjoyable endeavor that requires both technical and creative competencies. Likewise, learn how to take an iterative approach to problem-solving and understand design thinking processes to create compelling user interfaces. In addition, I intend to improve my programming knowledge and learn related skills such as version control, unit and integration testing, and even writing simple documentation.

Part Two:

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| **Checkpoint** | **Software Design and Engineering** | **Algorithms and Data Structures** | **Databases** |
| **Name of Artifact Used** | Weight Tracking App from CS 360 course  ( Mobile Architecture and Programming) | Animal\_main.py  Animal\_module.py (CS 340: Client/Server Development ) | Animal Rescue Dashboard with MongoDB (CS 340: Client/Server Development ) |
| **Status of Initial Enhancement** | My goal is to build a well-designed user interface that incorporates account creation and input validation for easy system navigation and understanding of its security measures. Thus, demonstrating my grasp of data visualization and management principles and focusing on user-centric principles. | My goal for this project is to use Indexing, sorting, and CRUD operations that can be performed more efficiently, thus demonstrating my capacity to improve the system's efficiency. I will show my algorithm optimization skill by minimizing unnecessary processes, making the program more efficient. | By implementing indexing and aggregation pipelines, I am improving query performance in MongoDB and handling larger datasets. Currently, I am researching optimization strategies but I have not yet finalized my approach. |
| **Submission Status** | Preliminary work has started, but no enhancements have been submitted yet. | Efforts are underway to replace the array with List, but the updates have not been submitted yet. I am currently working on refining and optimizing the data; no submissions have been made thus far. | There hasn't been a submission so far; we are still improving it and concentrating on enhancing the methods that will facilitate significant horizontal scalability without adjusting application logic. |
| **Status of Final Enhancement** | The project is currently in progress. By incorporating user friendly account creation page and input validation along with displaying the chart, I aim to implement its functionality in their software design and development. | This is currently a work in progress. Once I complete testing and reviewing, I will improve the list and assess alternative algorithms for enhanced runtime efficiency. | Improvements are in progress. To enhanced with additional database features and a more efficient data access strategy. I am implementing data aggregation and indexing to create adaptable and efficient data retrieval methods that reflect my understanding of performance optimization and user-centric queries. |
| **Uploaded to ePortfolio** | The file has not yet been uploaded. | There is still work to be done on the finalized ePortfolio. | There is still work to be done on the finalized ePortfolio. |
| **Status of Finalized ePortfolio** | There is still work to be done on all categories of the ePortfolio before the final version is ready. | There is still work to be done on the finalized ePortfolio. | There is still work to be done on the finalized ePortfolio. |

**Status Checkpoints for All Categories**

**References**

*Andrew Armstrong  is a technology enthusiast and digital marketing adviser based in the San Francisco Bay Area. A graduate of U.C. Berkeley in 2003. (2016, September 2). How to protect intellectual property in the interviewing process - ipwatchdog.com: Patents & Intellectual Property Law. IPWatchdog.com | Patents & Intellectual Property Law. https://ipwatchdog.com/2016/09/04/protect-intellectual-property-interviewing-process/id%3D72468/*

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