

Individual Capstone Assessment - Aiden Frank

Packing Pal is intended to be a showcase of the skills and experience I have gathered over my years of learning and co-oping at UC. Now that I've had the opportunity to work alongside other programmers and get first hand experience developing, I get to design my own project and see if I can put all of the things I've learned to work. I will be working with a team of other students who I trust and will rely on, with them also relying on me. While I don't know now how the project will go, I do know that I will put in my best effort and try to deliver a product that I am satisfied with. And at the very least it will be a good learning experience that lets me hone my skills further and become a better developer. But there are a few things to go over first that I've experienced as a student learning to be a developer.

There are a couple Computer Science courses I took at UC that I think were very influential in my learning. The one I'd say is most relevant to this project is a course I took in Spring 2025, CS 3093C: Software Engineering. This course focused on a multitude of different aspects of the development lifecycle and the role of a developer, but I'd say the most useful aspect was what I learned about Github and open source contributing. Before this course I was familiar with a lot of Github's systems, but hadn't really experienced much of actually working with it. This class forced me to interact with a community I hadn't ever done anything before and dip my feet into replicating development environments and contributing code. The technical and nontechnical skills I gained included a better understanding of Github and its workflow as well as more confidence in my ability to contribute code and problem solve. Another Computer Science course that I felt was influential in my learning was CS 4092: Database Design and Development. This course mostly helped me on the technical side, as before this course I hadn't had much experience with databases or SQL. In order to build this project, there's a good chance we're going to need to implement a database and keep track of user information. I feel like this course and some of the projects that I had during it will help me get a better idea of how to build out the database I need and use it in this project.

I also felt like my co-op experiences helped shape my knowledge and understanding of good development. My first two co-ops at London Computer Systems as a QA and then Software Developer co-op helped introduce me to the software development lifecycle and also got me started on the path of web

development. My third co-op at Kroger as a Technology and Digital intern let me learn more about APIs and experiment with languages like HTML, CSS, and Javascript. And finally, my last two co-ops at Siemens as a Student co-op let me work with a manager on a project that I mostly built myself which taught me a lot about researching and good coding practices. In the second co-op I even got to develop my project further and showcase it to others in the company. All of these co-ops gave me a lot of real world experience as a developer and will help me work with my team members and stick to a good schedule in order to deliver a project I'm satisfied with.

I've had a lot of valuable experiences at UC, and this project does feel like a culmination of those. I am motivated to work on it because my experience at Siemens taught me the joy of showing off something I built myself to others. I like the feeling of knowing the ins and outs of a product and letting others experience it. I am also excited to work with some other students and share our knowledge among each other. Hopefully my time working with other developers on co-ops will help me navigate working on a team here. It may take some time, but I am confident I can make this work.

While I have a rough idea of what Packing Pal will look like right now, I'm not completely sure what the end product will look like. My approach right now is to start brainstorming and researching potential resources and inspirations for the project. Using these resources, my team can get a clearer idea of the product and start setting goals for what features need to be implemented. I think if we can set our goals and then monitor our progress towards them, we will be on track to reach and/or refine them as progress continues. I will also self-evaluate by comparing what I have accomplished week to week and seeing if the amount of work I've done is on pace to get the project completed by our deadline. I think regular reflection is important to steady progress and will help with this project. And hopefully, with the knowledge I have now and a good plan, my team and I can accomplish our goals and make a great senior design project.