

Name: **Anay Abhijit Joshi**

My senior design project, “**Furrfect**”, is a specialized social media blog app designed to connect pet owners. The platform allows users to share moments from their pets' lives while accessing resources such as pet healthcare, adoption services, and maintenance tips. Through this project, I aim to develop a supportive community that not only offers social engagement but also improves the well-being of pets by providing valuable and easily accessible information. This project aligns with one of my my passions for web development and data-driven solutions, reflecting the intersection of my academic focus on software development, user experience, and community engagement.

Throughout my college journey, my University of Cincinnati's coursework has provided a strong foundation in both the technical and theoretical aspects of my major, i.e., Computer Science, which will be invaluable in developing “Furrfect”. Some of the courses like ‘**CS 2023 - Python Programming**’ and ‘**IT 1009C - Python for IT**’ have helped me refine my skills in back-end development and Python (programming language), allowing me to effectively structure and manage data-driven features of the app, such as user profiles and pet-related resources. Moreover, my experience in ‘**CS 4092 - Database Design and Development**’ is crucial for the back-end architecture, enabling me to design a scalable and efficient database system to store user and pet data. In addition, courses like ‘**AMEC 2050C - Web Design 1**’ and ‘**CS 5167 - User Interface 1**’ (which I’m currently taking, this semester in Fall 2024) will aid in creating an intuitive and visually appealing user interface (UI). These combined academic experiences have equipped me with the necessary technical skills to manage both front-end and back-end elements effectively, and the problem-solving strategies acquired in ‘**CS 2028C - Data Structures and Algorithms**’ will help optimize app performance. I also believe that courses like ‘**CS3003 - Programming Languages**’, ‘**CS 4033 - Artificial Intelligence: Principles and Applications**’, and ‘**EECE 3093C - Software Engineering**’ which I had completed earlier, might be useful as well.

My co-op experiences have further shaped my approach to this project by providing practical, hands-on experience in software development and project management. During my **Summer 2024's internship/co-op** at **Infinera Corporation (Sunnyvale, California)** as a **Software Development Intern**, I gained experience designing a Python engine that communicates with external systems through REST APIs, a skill that will be essential in connecting “Furrfect” to third-party services like veterinary care providers. Moreover, my experience with the same role, during my second internship/co-op at Infinera in **Summer 2023**, also taught me the importance of building robust and well-documented code, which I plan to apply in this project to ensure maintainability and scalability. Additionally, during my **Fall 2022's internship/co-op** as an **ASIC Test Software Development Intern** at Infinera, I developed automation scripts and improved testing procedures, which reinforced my ability to

streamline workflows, reduce redundancy, and improve efficiency. In my opinion, both technical and non-technical skills, such as teamwork, debugging, and attention to detail, acquired during these internships will directly contribute to my approach to project development and team collaboration.

My motivation for developing “Furrfect” stems from my love for animals and my desire to contribute to a project that can enhance their lives. Pets play a significant role in the lives of many, and I believe creating a platform where pet owners can easily find support and information will have a meaningful impact. I am excited about the potential to blend my technical knowledge with a project that serves a real-world purpose. Additionally, the challenge of creating a user-friendly platform that integrates social interaction with educational content is something I find intellectually stimulating. In my opinion, the project represents an opportunity for me to apply the skills I've acquired over my academic and professional career to create something both functional and beneficial for users and pets.

Finally, my initial approach to developing “Furrfect” will focus on user-centered design principles, ensuring that the app is intuitive, responsive, and valuable to the community it serves. I plan to begin by creating a wireframe and mockup to visualize the user interface, followed by developing a database structure that will efficiently store and retrieve user data. The back-end will be built using Python and FastAPI (possibly), technologies with which I am already familiar from my co-op experiences. Once the core functionalities are in place, I will integrate external resources, such as veterinary databases, through API connections. To evaluate my work, I will rely on user feedback, bug tracking, and performance tests to ensure that the app is both functional and user-friendly. I will know I have done a good job when users are able to seamlessly interact with the platform and benefit from the resources it provides.