As a computer science student and a member of the Air Force Reserve Officer Training Corps (AFROTC) at the University of Cincinnati (UC), few things pique my interest quite like an Air Force-themed game. The cliché of computer science students and board games applies to me. Mixing that interest with another hobby of mine, the Air Force, I am certainly interested. Fortunately, the Air Force Wargaming Institute created a wargame called Air Force Wargame: Indo-Pacific (AFWI) just for me. With the initial idea of pursuing a computer science degree to get into making video games, an idea arose for my senior project. Create a digital version of this beloved board game, honing my programming skills in an entertaining and useful passion project.

Frankly, my computer science career has been half-hearted. I did not fully understand what I was getting myself into with this major, but I have since gone too far to change it. I was hoping to do more data analytics, front-end user experience, web design, or game development. However, I discovered too late that I had ended up in a major that was a bit separate from those interests. Regardless, many of my courses have taught me technical skills that will loosely relate to this project that I am going to take on. Namely, the most engaging and productive courses in my academic career were EECE1080C Programming for EECE and CS2028C Data Structures. These courses taught me foundational and intermediate computer programming skills, which will be incredibly beneficial for my senior design project.

My co-ops have also taken me in a different direction than a typical computer science student. I spent the majority of my co-ops on hardware engineering teams making Microsoft Excel or Microsoft Access applications for a production facility. My first co-op at BAE Systems, I worked in a facility where I just made Excel-based schedule applications for a hardware engineer. My second, third, and fourth rotations, I spent my time creating inventory Microsoft Excel workbooks boosted by VBA macros and Microsoft Access check-in/check-out application for tools. Most recently, I simply worked as an intern where I occasionally helped with Tableau dashboards at Great American Insurance Group, but instead spent most of my time helping process insurance business. None of these experiences really scratched my itch for data analysis, web design, or game development, they were simply jobs I had to take because I received no other offers. This project will be a great opportunity to pursue a goal I have had in the back of my mind for over five years.

As mentioned throughout this essay, I have been dissatisfied with my studies so far. I have lacked the conviction to explore electives outside of my major that better fit my interests. This major was not fully what I expected. I do wish I had found something more fitting. Regardless, this project is a chance for me to explore something new. Try to challenge myself differently, in a more motivating way. Pursuing a project that aligns with my academic and personal interests will hopefully propel me to some deep learning and a product I am happy with.

By the end of this project, by the end of the spring 2026 semester, I hope to have a fully realized digital version of this board game, AFWI. I would like to make a version of this game where you play head-to-head with another live opponent. That can make this game playable over long distances, without the necessary board game materials, and hopefully help the pace of play. Throughout this process, I will continue to check in with myself on the status of this project, as it is a solo project. Setting regular but realistic deadlines for certain levels of completion will help me get the project completed on time. Completion to me looks like a relatively bug-free multiplayer digital board game.