

Holistic Reflection on professional growth

From my first programming assignments to designing human-centered applications such as WeBe, I've not only refined my technical toolkit but also developed a clearer understanding of how technology can serve people and communities. The simple multiplication of projects now compared to the start of my journey speaks to my growth. As a graduating senior in Computer Science at the University of St. Thomas, I can now look back with pride on the path that led me here.

One project that best demonstrates my growth is the **AI Helper App**, my team's senior capstone project. This mobile application provides students with mental health support and productivity tips through an AI-driven backend. I was responsible for the backend infrastructure — building secure authentication routes with JWT, setting up the PostgreSQL database, and connecting everything to the React Native frontend. The scope of this project demanded that I move beyond classroom exercises and tackle real-life challenges. It pushed me to learn new tools quickly, debug persistently, and maintain consistent communication with teammates.

Another key project was **SocioMap**, a geosocial application that allows users to discover new places and meet others based on real-world locations. This app required dynamic user location tracking, proximity logic, and map rendering — all built using FastAPI, React, and PostgreSQL. My contributions included building the authentication system, connecting frontend API calls to backend logic, and modeling user movement. Working with live map data helped me appreciate the technical challenges of building for the physical world.

These projects helped shift my perspective on technology's role in society and how fast things move. With AI developing faster and faster, building applications become easier without losing in complexity. This complexity opened my eyes to the works of my predecessor, and although daunting, instilled in me an even stronger desire to learn.

These projects were nonetheless far from being straightforward. I faced many challenges and obstacles in the making of these various applications or systems. One of the greatest challenges I faced was integrating multiple technologies into the capstone project in a way that aligns with version control management practices. Keeping track of progress was difficult when we coded differently, had to review each other's work, adjust to others, debug different versions, etc. Despite the struggle, I am proud to say that I have a considerably better idea of how version control using GitHub works, as well as which proper collaboration techniques and frameworks to use in the future.

Importantly, my technical achievements align with my personal values. I believe in tools that empower users rather than overwhelm them. This core belief fuels soft skills like communication and a genuine attempt to understand not only my teammates but also the target

audience. This understanding ties into cultural awareness, as an individual of color in a predominantly white institution, because everyone deserves equal access to these technologies.

Furthermore, this journey reinforced how technical and soft skills must work hand in hand. My ability to write clean backend code would have meant little without the communication and **dependability** skills needed to coordinate with teammates on API structures and sprint goals. Likewise, building an authentication system required me to ask clear questions, document my code, and listen carefully to frontend developers' needs. These collaborative moments are where I've grown the most — learning how to be both a coder and a contributor to a shared vision, while not letting my teammates down.

One specific experience that helped me develop both sets of skills was the conceptualization of this application. One must think about it in terms of practicality and consider all sorts of factors that may hinder the intended outcome of the project. Such extraneous thinking must be shared with group members, which goes beyond simple communication. It necessitates the ability to clearly and concisely convey complex ideas and thoughts, which resonate with spoken skills to me.

Going forward, I plan to keep developing my skill sets by working on real-world projects after graduation. I will continue building portfolio pieces that not only align with my creative nature but can also serve a purpose. Since these project ideas are far from being completed, I hope to start with them (AI Helper; SocioMap). I also want to deepen my understanding of user experience design and ethical AI. On the interpersonal side, I will keep engaging in public speaking, event organizing, and mentoring whenever possible. I've learned that the best software is built not only by smart developers but by empathetic collaborators.