

# Brandon Hach

Charlotte, NC | 336-590-2274 | [Linkedin](#) | [Email](#) | [Github](#) | [Website](#)

## EDUCATION

**The University of North Carolina at Charlotte**  
*BS in Computer Science, Software Engineering Concentration*

**Charlotte, NC**  
*August 2021 - May 2024*

## SKILLS

**Programming Languages:** Python, Java, Javascript, Typescript, HTML, CSS

**Frameworks:** React.js, Flask, Next.js, Express.js, Tailwind

**DBMS:** PostgreSQL, MongoDB, MySQL

**Others:** Figma, Postman, Git, Git Bash, Notion, DataGrip, VScode, VirtualBox

## PROJECTS

### [Collaborative Whiteboard WebApp](#) (React.js, Flask, PostgreSQL, Python, JavaScript, Tailwind, DaisyUI)

- **Led** a team of five in designing a collaborative whiteboard web application that supports real-time sketching in an optionally password-locked room session with chat.
- Developed a **custom-made API** using **Flask** with user authentication and authorization mechanism, and **RESTful services** consumed by React.js for dynamic front-end experience. And utilized **Socket.io** to achieve **real-time communication** for the chat and the interactive whiteboard functionality in a room session.
- Managed **project workflows** by assigning user stories, hosting weekly Agile sprint meetings, and making releases on time for each project milestone.
- Oversaw **front-end development** using **DaisyUI** and **Tailwind**, crafting a sleek, minimalist bento-inspired design layout.

### [Personal Portfolio Website](#) (Next.js, React.js, TypeScript, Tailwind)

- Leveraged **Next.js** and **React.js** for ease of development and **UI component structure**.
- **Next.js framework** supports **production optimization** and **server-side rendering**, achieving faster page load time and **responsive UI** by only setting components to client or server use.
- Deployed into production on **Vercel**, ensuring optimal performance and accessibility for all users. Benefited from **Vercel's straightforward rapid hosting deployment** through its integrated support with the **Next.js framework**.

### [ForTheBoard Forum](#) (Flask, Python, PostgreSQL, Bootstrap)

- Collaborated with a team of six to design and develop a forum website using **Flask** and **Jinja** built-in server-side templating engine with HTML and Bootstrap via CDN link.
- **Daily agile sprint standups, sprint planning, and retrospectives** with my **team** to promote cohesion and collaboration. Deliver **business requirements** quickly and effectively using **Trello** and Sprint documents for **user stories**.
- Upheld best practices in version control to consistently conduct **pull requests** and adhere to **git etiquette** to ensure no conflict and promote the use of **branches** during development using **Git-Bash** as the CLI, GitHub for **Git Version Control**, and Discord for team communication and scheduling. This approach streamlined **code reviews**, **reduced merge conflicts**, and fostered smooth **team collaboration**.

### [Luxury Cheese Marketplace](#) (Express.js, JavaScript, Tailwind)

- Used **Express.js** to create a **RESTful** application, allowing users to manipulate listings using CRUD operations safely. Any errors regarding the scope of **REST** are handled by displaying a 404 or 500 error status page following convention.
- Organize project structure to use **Model View Controller** architectural design commonly used to structure web applications. The **controller** module contains **business logic and services**, the **routes** separated from **main** in a modularized manner to ensure **scalability**, the **model** that serves as an interface to perform **CRUD** operations on resources, and the **view** contains the **EJS templating engine** provided by **Express**.
- Utilize **middleware** such as **Multer** for file uploads, and **Morgan** for logging requests, errors, and more during development and testing. I stylized the UI design and layout from scratch using **Tailwind** to achieve the desired aesthetics of an e-commerce website for the cheese marketplace.

## STUDENT ORGANIZATION

### **Association for Computing Machinery (ACM)**

*Club Member*

*September 2023 - May 2024*

- Weekly meetings where the club members socialize, practice, and learn in the field of software engineering.