Brandon Hach

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EDUCATION

The University of North Carolina at Charlotte   **Charlotte, NC**
BS in Computer Science, Software Engineering Concentration   *August 2021 - May 2024*
Senior | 3.5 GPA | Dean's List 2021-2023

SKILLS

Programming Languages: Python, Java, Javascript, Typescript, PostgreSQL, MongoDB, MySQL, HTML, CSS

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

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

PROJECTS

[Personal Portfolio Website](#) **(Next.js, React.js, TypeScript, Tailwind, HTML, CSS)**
- 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 setting components to either client or server use only.
- 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**.
- Incorporated **Framer Motion** to create engaging animations and transitions which ensures user accessibility.
- **DaisyUI library** is used to achieve a modern and sleek design in a consistent and visually appealing directive.
- Used **Tailwind** to implement a **responsive design layout** using **grid** property which is compatible with the most common devices and screen sizes.

[ForTheBoard Forum Website](#) **(Flask, Python, Bootstrap, HTML, CSS)**
- 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 and ensure cohesion and collaboration. Deliver **business requirements** quickly and efficiently 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**.
- My main role is to develop **API endpoints** and implement **CRUD operation**s from **Postgres** to **Flask** using the **ORM** python library **SQL Alchemy** and populate the database using the **ERD diagram** created by my team. Used **Postman** to employ extensive **API endpoint testing** and ensure **HTTP methods** meet conventional standards.
- Designed part of the forum page with **Bootstrap** and implemented **custom-made flairs** with CSS animations to ensure user accessibility.

[Cheese E-commerce Website](#) **(Express.js, JavaScript, Tailwind, HTML)**
- Used Express.js to create a **RESTful** application, allowing users to safely manipulate listings using **CRUD** operations. 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. 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
- Weekly meetings where the club members socialize, practice, and learn in the field of software engineering.