



# Wasabi

## Towards End-To-End Nutrition Scraping From CBORD For Accessible Collegiate Dining Experiences At Vanderbilt University

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### Problem Statement

Upon an initial user study, we found that NetNutrition, the current way of accessing Vanderbilt dining options, is slow, hard-to-use, and inconvenient. This makes it incredibly time consuming, especially given the latency of the page, as well as difficult to compare several options at once due to the nested nature of the website.

### Proposed Solution

We propose a cross-platform, quality-of-life application that makes finding, understanding, and viewing Vanderbilt dining menu options. Wasabi will implement web scraping logic to provide the following features:

- Drop-down select to choose date
- Drop-down select to choose location
- Tab or swipe-thru to view menu for meal period
- Options divided by stations with allergy icons

### Project Planning

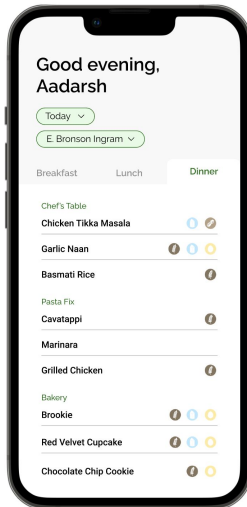
Our division of labor is as follows:

- Izzy H.: UX/UI Design, Product Owner
- Raahul N.: Web Scraping Architecture, System Design, Application Testing
- Aadarsh J.: Mobile Application Development, Application Deployment

3 Sprints:

- Sprint 1: User Study and Prototyping
- Sprint 2: Web Scraping and Application Development
- Sprint 3: Application Testing and Deployment

### Final Mockups



### Cross Platform Application Development

Designing the application involves:

- Creating a web-scraper for NetNutrition using JS
- Creating the UI pages using React Native and Redux
- Integrating the scraper with the UI
- Displaying the scraped dining information in the application
- Building and testing the application for iOS and Android
- Deploying the app to the Apple App Store and Google Play Store



### Risks & Mitigation

The following are select risks and how we are mitigating them:

- Learning JS and React takes too long - Create a JS training session
- Create very buggy code - Use AGILE and pair-programming
- NetNutrition changes API or web page - Review NetNutrition for changes and make code adaptable for NetNutrition changes
- Workers get sick - Workspaces socially distanced, require masks
- Version control failures - Create Git workshop, make Git cheat sheet

### Future Work

After launching the MVP of Wasabi, there are three main areas of future work:

- Personalization Preferences
- Real-time dining updates
- Expansion to other universities and campus-like dining institutions