

ATHLEAT

Eat. Move. Feel.

Built by Charles Richardson, Preston Goren, Humberto Garcia, Saketh Renangi

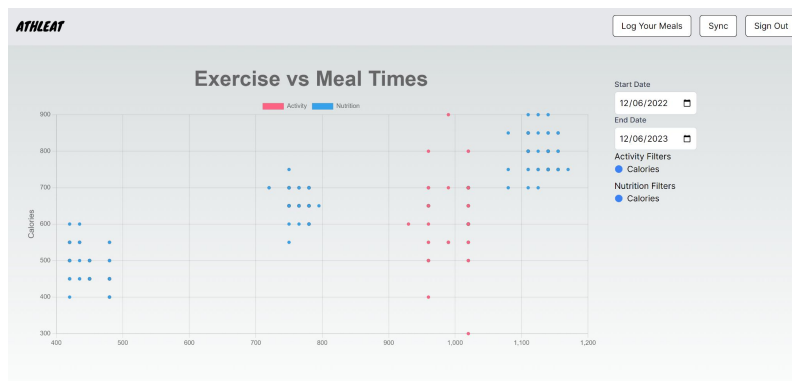
Product Vision

- **Scope**
 - Emerging Trend of Holistic Health Monitoring
- **Problem**
 - Fragmentation in Health Data
 - Inefficiency and User Inconvenience
- **Solution**
 - Unified Health Dashboard

Humberto Garcia

Frontend Team

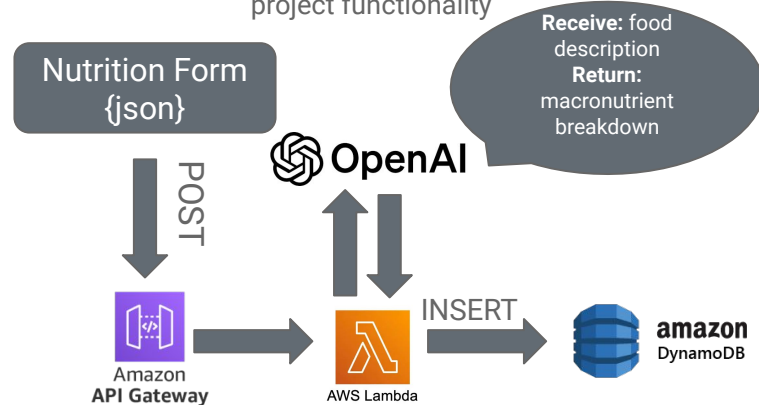
- **UI/UX Design**
 - Aided in creating a wireframe on Figma for what the app would look like
 - Created home page
 - Made a navigation bar that exists at the top of every page
- **Chart Implementations**
 - Created charts using Chartjs that display the user's data in different ways
 - Charts react to changes in filter and date
 - Used for trends and timeline



Preston Goren

Backend Team

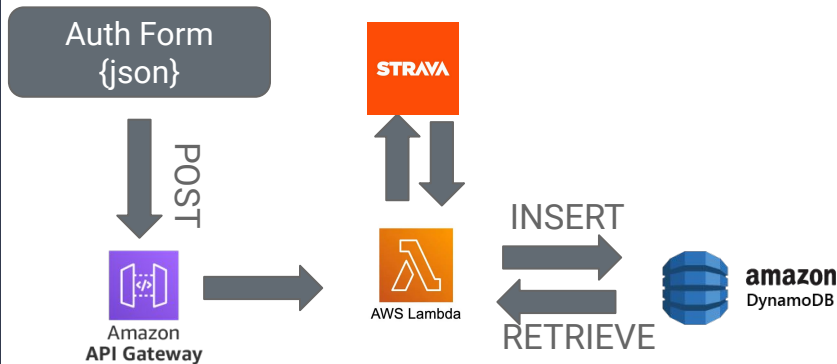
- **AWS Lambda and API Gateway**
 - Deployed AWS Lambda functions to handle data flow and external API usage. Built custom Lambda Layer package to enable integration with OpenAI's API. Provisioned resources via API Gateway for request handling and management of Lambda functions.
- **DynamoDB Database Management**
 - Utilized boto3 and other aws tools to populate DynamoDB with event data via lambda functions.
- **OpenAI Integration**
 - Integrated LLM-powered macronutrient + calorie estimation to transform meal descriptions into actionable data by leveraging OpenAI's API
- **Synthetic/Testing Dataset Generation**
 - Responsible for the creation + population of a synthetic user and associated data in order to test project functionality



Saketh Renangi

Backend Team

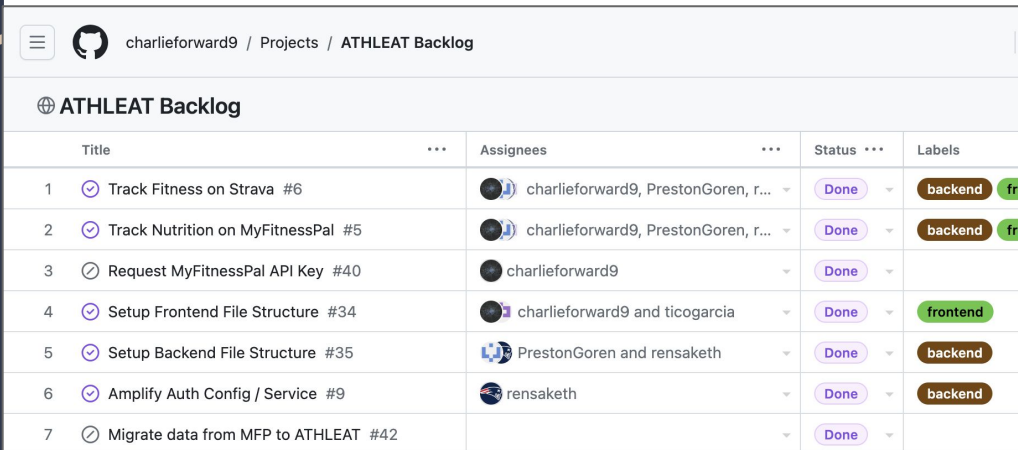
- **AWS Lambda and API Gateway**
 - Developed backend AWS Lambda functions for data processing and API integration. Configured API Gateway for secure, efficient communication with the front end.
- **DynamoDB Database Management**
 - Managed DynamoDB for user data storage; optimized for performance. Enabled data operations (insert, retrieve, update) via Lambda.
- **Strava API Integration**
 - Integrated Strava API for fitness data import; handled OAuth and data sync. Processed data for app display and analytics.



Charles Richardson

Project Manager, Frontend Team

- **Backlog Execution Strategy**
 - Planned and communicated the build out of the projects with Github Projects and Issues
- **Codebase Integration**
 - Utilized AWS' amplify-js and the Service/Controller Design Pattern to create a pipeline through back- and front-end for all use cases within the application
- **Authentication & New Event Entry Flows**
 - Designed the front-end views and flows that encompass user authentication and new event entries.



charlieforward9 / Projects / ATHLEAT Backlog			
ATHLEAT Backlog			
Title	Assignees	Status	Labels
1 Track Fitness on Strava #6	charlieforward9, PrestonGoren, r...	Done	backend
2 Track Nutrition on MyFitnessPal #5	charlieforward9, PrestonGoren, r...	Done	backend
3 Request MyFitnessPal API Key #40	charlieforward9	Done	
4 Setup Frontend File Structure #34	charlieforward9 and ticogarcia	Done	frontend
5 Setup Backend File Structure #35	PrestonGoren and rensaketh	Done	backend
6 Amplify Auth Config / Service #9	rensaketh	Done	backend
7 Migrate data from MFP to ATHLEAT #42		Done	

Demo Time

- **Demo 1**

- Reveal authentication and data synchronization services with a real user profile.

- **Demo 2**

- Reveal charting functionality with a synthetically populated user profile.

Challenges

- **Challenges**
 - Learning curve of AWS ecosystem
 - Communicating data and its shape between front-end and back-end
 - Schedule alignment for all team members and Advisor
 - Client/Server side rendering limitations
 - Originally planned to integrate with MyFitnessPal but weren't able to gain access to their API

Takeaways

- **Takeaways**
 - More experienced with cloud technologies such as AWS
 - Invaluable experience with REST API development
 - Gained experience coordinating project efforts as a team and communicating collaboratively
 - New experience with emerging technologies such as NextJS and AWS Amplify

Future Enhancements

- **Additional Integrations**
 - Integrate with more services (Whoop, Garmin, Apple Watch)
- **Personalization**
 - Utilize AI for personalized recommendations

ATHLEAT

Thank You for Watching