

EE / CprE / SE 492 – sdddec19-03

GoMe

Bi Weekly Report 14

10/25/19 - 11/08/19

Client: General Public

Faculty Advisor: Goce Trajcevski

Team Members

Michael Arnold - Chief Engineer

Jacob Montgomery - Lead UI

Jaclyn Ralfs - Data Analytics/Scribe

Akaash Suresh - Engineer/AI Tech

Mark Marrano - Systems Engineer/Requirements Analysis

Bailey Jensen - Lead Back End/AI Tech

Accomplishments of the past two weeks

- Worked on algorithm of filling free time with priorities and getting the schedule to dynamically make changes - mike and jake
- Implementation of the dynamic schedule, specifically one that changes due to a certain trigger in your activity - Jake and Mike
- Finish implementing User Tasks and incorporate that into priority algorithm so we can show them in our schedule. - Jake, Mike
- Implementation of generating and searching for priorities in the user's schedule by using a variation of the 0/1 Knapsack problem algorithm - mike and Jake
- Code Cleanup - Mark
- Completed implementing features for users to create tasks by using a polymorphic object, splitting User Tasks into dated and undated task objects. - Jake
- Updated the schedule page UI into separate designs for each type of activity, including tasks that need to be done - Jake
- Re-designed the activity creation process and incorporated event images and tags for future use in a recommendation algorithm.
- The ML model is getting better at fitting to the data that we give it, and giving accurate results from sample data we give it. - Akaash

Pending Issues

- Going to need to regression test a lot of the features being added in currently, once the AI is completed.

Individual Contributions

Team Member	Contribution	Hours	Total Hours
Michael Arnold	Worked on designing the algorithm for scheduling activities dynamically, worked on code cleanup	20	185
Jacob Montgomery	Worked on an algorithm to dynamically schedule a user's must-attend events as well as high priority tasks and other lifestyle priorities. Implemented separate views for each type of activity in a user's life. Incorporated Tasks into the app, and added a tagging feature to social activities.	30	145
Bailey Jensen	Finalized travel time between locations. Beginning to build out a user notification service and the ability to handle multi-user events.	15	103
Jaclyn Ralfs	Continue integrating graphs for user's to view data and additional info about their schedule	10	78
Akaash Suresh	Worked on creating the microservice. This involves persisting the ML model for later recall	10	98
Mark Marrano	Continued code-cleaning and general debugging.	15	100

Plans for the Next Two Weeks

- Continue merging AI with Data Collection - Michael, Jaclyn, Akaash, Bailey
 - Now that we have our data collected we can begin picking out the specific data points we need to feed to our AI and then begin feeding it to our AI.
- Get the schedule working in real time by connecting location verification service with the scheduling algorithm. This will allow our application to update the schedule based on certain triggers like the user arriving or leaving an activity - mike, jake
- Continue working on the following services to understand the ELO score - Mike, Jake, Bailey

- A service that understands the users elo score and makes updates to the schedule accordingly
- A service called the feedBackService that understands the users elo score and gives feedback to the user on how they are performing -- an AI-like “app-voice” parent/mentor feeling to it
- A service that analyzes the users elo score and creates charts and other analysis for the users
- Create a service to traverse activities in the DB and choose recommended activities for the user - Jake, Mike
- Create social feed objects and allow users to post updates - Jake
- Allow users to become friends with each other - Jake
- Work on a notification builder service - Bailey
- Integrate Firebase Cloud Messaging for easy push notifications - Bailey
- Implement some data visualization for the AI to use when the AI is built: Mark/Jaclyn
- Find a way to continuously log the user’s activity throughout the day and how it affects their Life Score - Mike
- Code cleanup - Mark
- Fully implement sleep prediction and pass data through a python endpoint
- Find ways to persist the ML model for each user.