

STRAVA Club Heatmap and Segment Explorer

CSE 512 Spring'16 | Collin Walker, Yitao Wang, Ricki Xie, Li Zeng

Design Question

How can we help Strava cycling users find clubs, explore new routes and meet new cycling partners?

Motivation

For Perspective Club Members

For people who are new to an area and want to join cycling clubs that are close to where they live, there are numerous clubs Strava has to offer. However, users currently can only search for clubs by name, location, sport and type of club on Strava. The lack of visual display for where clubs are most active in greatly hinders people's ability to find potential clubs.

For Club Organizers

Club organizers seek to create routes for group rides that better serve their club members interests and abilities. Our visualization empowers these club owners to see where the club members usually go and their corresponding cycling performance can help the organizers customize routes for each group ride and invite new people to join.

Approach

To address the needs of both prospective club members and club organizers, we develop a platform visualizing riding patterns (where the club members have ridden) within a given period on a map.

◆ Timeline Control

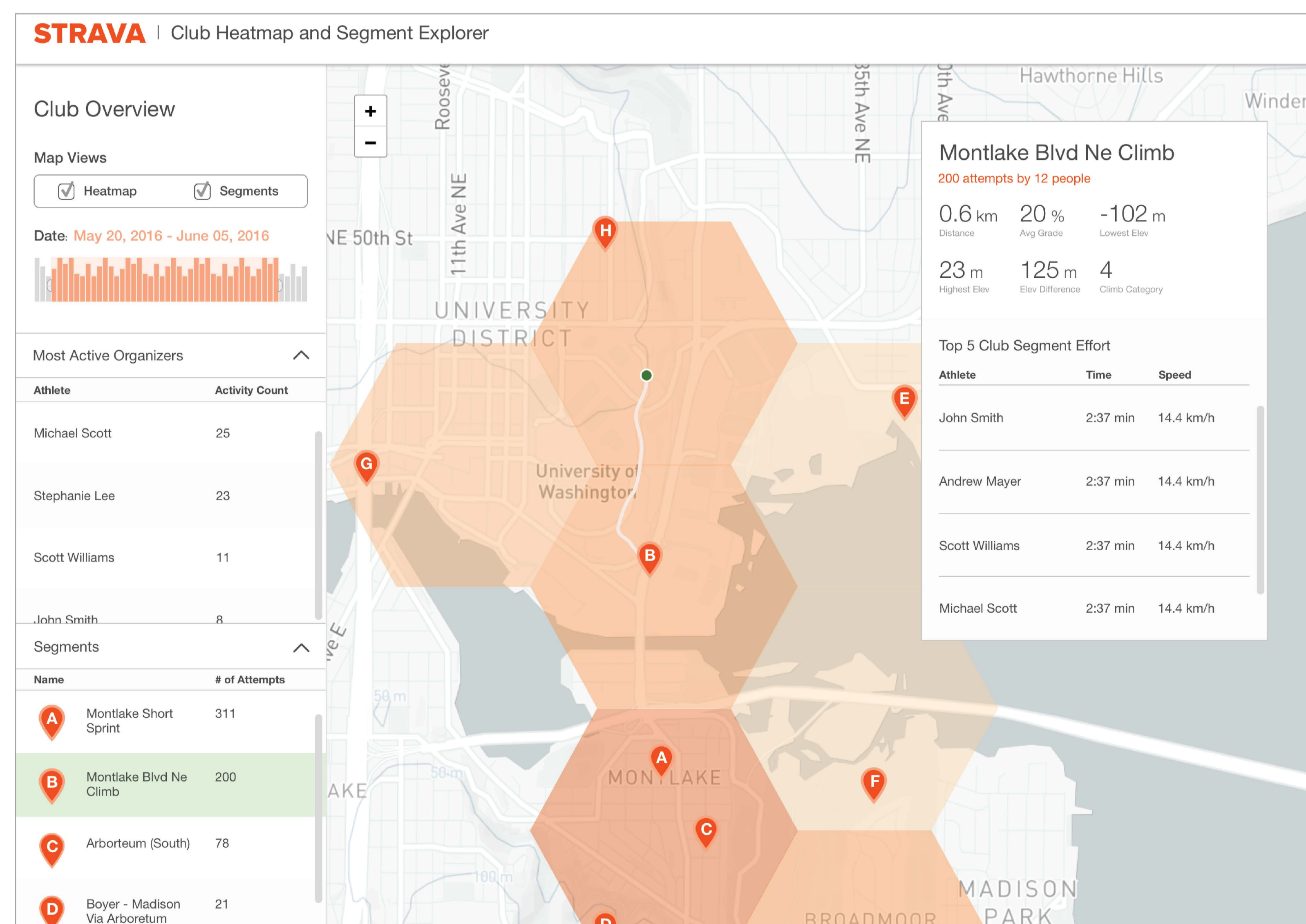
To explore the progression of the specified club cycling pattern, the user can interact with the double slider to query the visualization within the specified time period.

◆ Active Users List

A list of the most active users within a certain timeline will be displayed. This motivates the club members to be more engaged as well as helps the club organizers to find potential new cycling members to a group ride.

◆ Segments List

The user can pan and zoom the map to explore the visualization. Segments fall into the user's current map view will be displayed on the map, and the corresponding segments list will be shown on and sorted by the segment attempts.



◆ Two Mapping Visualizations

The user can interact with a checkbox to control the map views of the visualization. The heat map view displays a distribution of the activity within the areas. The segment view shows the location of all segments and relevant information in the context of the selected club. Both views can be displayed simultaneously on the map.

◆ Detailed Segments Information

The user can explore a segment by picking it from the segment list or directly on the map. A detail of the selected segment is shown. It includes segment-specific information such as distance and average elevation, as well as a showcase of the top 5 segment efforts from the club.

Future Works

To better help prospective club members assess their fits with a club, we can further differentiate the group ride activities from the regular club members activity on the map.

To help club organizers customize a set of suitable routes for different group rides, additional datasets like municipal level information can be included to discover newly built and bike-friendly routes.

Implementation

<http://bit.ly/1U4n2BC>