Smith Walks is a geotracking project aimed at exploring Smith College community. It gathers information about movement of people on Smith campus, and analyzes the data, sorting in by different criteria. By creating visualizations of paths, the project reveals patterns.

Smith Walks is a continuation of CSC 220: Advanced Programming Techniques taught by Dominique Thiébaut in Fall 2010.

The project involves the following:

- gathering geographical data in KML format using smartphone applications, like Walkmeter on iPhone and OpenTrails on Android
- storing KML files in a MySQL database along with information about participants
- generating static and animated visualizations of paths by building a Discrete Event Queue using Processing and Java
- creating heatmaps integrating R and Processing

Tools used: PHP, MySQL, Processing, Java, Python, R

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Our goal is to create visualizations of paths and heatmaps of Smith College.
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Fig. 4. Detailed scheme of project file relations. (Credit: Alex Cheng, SC’11)

Fig. 1. Map at Oakland Crimespotting is a good example of integrating Javascript and CloudMade to create a complex interactive application with customizable widgets.

Fig. 2. The Geotagger’s World Atlas #1: New York uses Perl, OpenStreetMap and Postscript to process the number of pictures taken at various geographic locations and to generate maps that display most geotagged locations in New York City.

Fig. 3. Geographic data, gathered by mobile geocaching devices, is uploaded into a database. The application pulls out the files according to user input.

Fig. 5. Map of Smith College with a trace that is displayed using a Discrete Event Queue.

Fig. 6. Heat map of Smith College shows the intersections of paths in red.
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Current Results

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