

Lauren Wolfe, wolfela
Raag Pokhrel, raagp

Event Mapper (CHANGE ME, Placeholder App Name)

As home computers decrease in popularity¹, mobile phones are increasingly² becoming the primary way in which we connect and communicate with the people around us. They are also becoming the primary way in which we explore our cities and communities, helping us find live music or art galleries or restaurants where we can while away a few hours. In today's world, the mobile phone now has the biggest influence in where we spend our time, and the people with whom we spend it.

What is Event Mapper?

Event Mapper is a geolocated, socially driven urban event locator and networking app. It allows a user to load a map and view currently occurring events in a certain area. Specifically, the application is:

- Geolocated - View events within a radius of your current location.
- Socially-Driven - See events to which your friends have RSVP'd or checked in; meet new people by browsing profiles of people who have checked into the event; see which events are most popular (have the most check-ins).
- An Event Locator - Filter events by category, starting time, price range, distance (from current location or a specified area), or whether anyone you know is attending.

Use Cases

While there are many different applications for this versatile, robust application, here are some of the primary ways in which it can be used:

- It's Saturday night, and everyone else is already out having a good time. You can try messaging all your friends and waiting for them to check their phones to get a response, or you can open Event Mapper and instantly find out what people are doing.
- Visiting a new city? With Event Mapper, you can party like a local!
- Want to meet like-minded people? Event Mapper allows you to connect with and send messages to other event attendees.
- Not sure what you want to do on a Sunday afternoon? Open up Event Mapper and check art galleries, movie theaters and parks for current events, all in one convenient location.

Alternatives and Their Limitations

While it may seem that current social networking sites such as Facebook, or event listers such as Songkick or Bandsintown already offer the functionality that Event Mapper does, there are several limitations to these current options:

- Facebook has events, but doesn't present the user with granular search filters or geolocation.
- Songkick and Bandsintown focus on narrower markets and don't offer geolocation or real time check ins.

¹ <https://www.statista.com/chart/1766/global-pc-industry-continues-downward-trend/>

² <https://www.statista.com/statistics/201183/forecast-of-smartphone-penetration-in-the-us/>

- Swarm (formerly Foursquare) focuses on location-based check ins, rather than enabling users to discover events.
- Media events calendars (newspapers/radio stations/etc) lack geolocation and social integration.

Furthermore, Event Mapper goes beyond anything that these sites are able to do by themselves and combines their functionalities into a one-click-solution, getting rid of the need to switch between different interfaces.

Application Architecture

Front End

- ‘Search Filters’, which allow users to select categories such as: start time, distance, friends attending, price range, etc. and in turn, generate a list of events.
- The list of events can be viewed in two ways:
 - List view: Ranking events by distance from user and number of friends attending.
 - Map view: Interactive map powered by Google Maps API, with tappable event pins, that allows users to zoom and pan in order to change the search location.
- ‘Event’ displays detailed information about the event, a list of friends that have RSVP’d or checked in, and displays a list of people who are currently checked into the venue (users opt into public check ins).
- ‘User Profile’ allows users to use Event Mapper to make new connections -- users may specify information about their dating status and preferences.
- ‘Settings’ allows users to select default display categories, set their language/units of measurement, edit their profile, set check-in to public (for all Event Mapper users), or private (facebook friends only).

Back End

- Facebook Login API provides authentication, as well as Friends List and Event RSVP data
- Events database, generated by venue-submitted data, Facebook events, and/or scraping/indexing local venue calendars provide search result information.

Challenges and Risks

The major challenge facing Event Mapper is the problem of ensuring that it provides accurate, comprehensive, and concise event data. Event mapper needs to:

- Avoid duplicate records:
 - Could use text-based search such as Elasticsearch to match on event titles and locations, flagging listings above a certain ranking for review.
- Ensure that location and time information is correct.
- Avoid spammy event listings (making sure that event information actually adds value beyond providing the location of a bar, for instance).
- Capture as many events as possible, so that users can be confident in using only Event Mapper to locate events.