



## Information Sciences & Technologies Department

~ MS/IST Capstone Defense ~

Balaji Jagadeesan

will defend

### Wayfinding in Highland Park Memorials

**Abstract:** Trends in contributing trees and benches to parks in memory of a departed soul are on the rise as they are affordable and environmentally friendly. Proper records on these memorial trees and benches are often not readily accessible and are forgotten in time. In addition to that, the exact location of the memorials is not always known. Sophisticated technology like digital wayfinding to track these features are not available especially for local parks like Highland Memorial Park, which is run predominantly by volunteers. The focus of this project is to build a scalable server-client system that will identify the location of these memorials and provide directions based on the user location. The first half of this paper presents the data collection and development of GraphQL server with Apollo framework along with the implementation of custom authentication using JWT. The second half of this paper discusses the development of mobile client using React-Native, Apollo client, React-Native Maps and development of administrative console using React. The mobile client has only minimal features and a few known bugs due to the inherent problem with the base library. The administrative console provides a basic interface to view edits, verify entry and accept new administrators. The project has a huge scope of turning into a robust open-source wayfinding application to identify the memorials as the react native and supporting libraries mature.

**Committee Chair:** Dr. Deborah Labelle  
**Committee Member:** Prof. Bryan French

**Defense date:** 06-04-2018

**Defense time:** 10:00 am

**Defense Location:**

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