Registration Form

TEAM INFORMATION

Team Name/Project Title: A Mobile Augmented Reality App for Real-Time Navigation

Department: Computer Science

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Team Members: Joseph Zurawski, Fnu Mrutunjayya

PROJECT INFORMATION

Description:

This project was focused on developing a mobile app that incorporates augmented reality, real-time navigation, and spatial data storage while addressing obstacles and further topics.

Abstract:

With “augmented reality (AR)” the real and virtual worlds are merged into one, providing an information-enriched view of the real world. Applications of AR are abundant; e.g., tourism, training, games, retail, etc. In this project we will develop a mobile augmented reality application for urban navigation. In particular, this mobile app will integrate the camera feed stream with point of interest (POI) metadata such as information about retail stores, restaurants, hospitals, gas stations, etc., as well as map data (including road network and road annotations), all in real-time. Querying large amounts of data implies a performance impact, but we reduce this using predictive and efficient client side caching techniques. This project is intended to become a research tool for the Big Data Management and Mining Lab, so it was designed with extensibility in mind. We also demonstrate potential social networking/media applications that deserve further exploration. Challenging aspects of this project are: collection of POI and associated spatial data, querying and finding patterns in the recorded spatial data.