

UBER

Uber's mission is to provide transportation as reliable as running water everywhere, and for everyone. Achieving that mission will require world class engineers and a lot of data.

Background

Uber's business model revolves around knowing where things are in the world. Whether you're taking an Uber to Coors Field or the newest restaurant down the street, Uber's databases need to know exactly where these places are so we can take you where you want to go.

Due to the constantly changing nature of the world, keeping places data up-to-date remains an expensive challenge for all companies that rely on maps.

Project Description

The goal of this project will be to write an app that can enable users to collect accurate places evidence using a smartphone.

On the surface, this is simple--when you take a picture with your phone, the phone knows where you are[†] and knows what direction you are facing[‡]. The problem is that this data is very noisy and makes extracting accurate information difficult.

The goal of this project will be to demonstrate that places data can be improved by aligning evidence images using a 3D point cloud generated from a structure from motion (SfM) pipeline, thus making the quality of the evidence data far better than it would be otherwise.

Requirements

We are looking for a team of 4 engineering students. Students should be confident programming in a variety of programming languages and should feel comfortable working in Linux.

Recommendations to our recruiting department are possible for students that show strong talent and a fierce determination to solve problems.

[†] sort of

[‡] not really