ParkSmart: UC Berkeley students team up with Honda to create app that can tell you where you can park

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According to the research firm INRIX, American drivers spend an average of seventeen hours per year, searching for parking.

However, a new application developed by UC Berkeley students, in collaboration with Honda, could change this. The students have developed a way to take real-time car trip logs and vehicle telematics as well as historical parking meter and ticketing data to develop a machine learning-based parking guidance system that provides users with a way to find nearby street parking. Using the drivers’ desired destination as well as both current and historical street parking trends, the team has produced a way for a driver to know exactly where the best place to park is.

By providing turn-by-turn directions to parking near a user’s final destinations, the creators of ParkSmart are hopeful that this will help reduce traffic, lower carbon emissions, reduce parking anxiety, and help local businesses.

One feature of the application allows for users to avoid areas where there are high amounts of parking tickets given, to help drivers avoid extra fees.

Specifically, starting by using data from Columbus, Ohio, the team’s model was fairly successful at predicting when a parking spot was available. Their models accurately predicted open spots about 85 percent of the time. With more real-time, crowd-sourced data, the team believes that they could significantly improve prediction accuracy by deploying their system in Honda vehicles.

The students believe that each trip that uses ParkSmart will help save Columbus drivers an average of 4.5 minutes and nearly 1.2 kilometers of driving at the end of their trips and prevent about 287 grams of carbon dioxide from being polluted into the atmosphere.

Through their collaboration with Honda, the students are hoping that this system can see its way into the dashboards of Honda’s fleet of connected vehicles, so Honda drivers can better locate available street parking.