

2021 DDOT Internship Program

Research, Development & Technology Transfer

GIS Analysis

Historically, the District Department of Transportation (DDOT) collects a variety of data in support of transportation planning studies. Parking data (also known as curbside data) is frequently collected and used to understand extant parking and speed limit regulations in support of corridor projects. Unfortunately, these data rarely extend beyond the bounds of the project and are rarely collected in a uniform manner from project to project. Because of this, DC has never had the data available to perform comprehensive analyses on parking and curbside usage at a citywide scale. That has now changed and DDOT now has a massive, comprehensive GIS database of parking regulations in DC.

Project Description

This project focuses on two major research areas. The first area of research involves a deep analysis on the quality of DDOT's new parking database - exploring and documenting problems, errors and ambiguities. The researcher shall provide a comprehensive report on all issues found. Secondly, the researcher will explore spatio-temporal patterns between the DDOT curbside/parking data and operational data from dockless vehicle rentals (scooters, ebikes, etc) and for-hire vehicle trips. The researcher shall create an engaging geovisualization (preferably using ESRI or Tableau-based platforms) to demonstrate and explore interesting patterns or anomalies.

This exciting research project will assist the GIS team in building data visualizations to help the department understand curbside regulations as well as explore curbside usage related to dockless vehicles and other for-hire vehicle trips.

Intern Skills

- Highly/motivated and self directed.
- Advanced proficiency in ArcGIS
- / Experience and familiarity with Big Data is a plus (Hadoop specifically)
- Experience with Python programming languages and Tableau is a plus

Educational Background

- Graduate or top-level undergraduate students from IT, Geography, Data Science majors preferred but not required.

Bi-weekly stipends range from \$1,400 to \$1,600
To apply, visit www.hutrc.org/internships

