

### **Abstract of the Project**

Here, there will be a full explanation of the progress made in finding the solutions from the database using OpenAI. The code was written in VsCode, denoting the databases for special events/construction, permit type, and demographic information. We used Github to save more data that will determine who will use the parking spaces. We will give data based on 50 parking areas around UMD, but the databases can take time to upload. The UMD DOTS project aims to enhance parking management for the University of Maryland's Department of Transportation Services (DOTS) by leveraging a comprehensive analysis of parking data. With over 50,000 students, faculty, and staff relying on parking facilities in the City of College Park, the effective allocation of parking spaces is a critical challenge. This project focuses on building a robust system to guide parking space allocation based on various factors such as special events, construction schedules, permit types, and demographic information. Utilizing databases for real-time parking data, the system directs individuals to available parking areas while considering restrictions like time limits and special event access. OpenAI's technology is employed to automate decision-making processes, allowing for dynamic updates and recommendations based on shifting parking conditions. The code, developed in VSCode, integrates data from several databases related to permits, events, and demographics and is managed through Github to ensure version control and collaborative development. While the data for 50 parking areas is still being uploaded, the system's scalability holds the potential for future expansion, significantly improving the parking experience for UMD's diverse community. This project represents a forward-thinking approach to transportation services, combining technology and data analysis to address a critical urban mobility issue.

<https://github.com/riyashah04/UMD-DOTS-INFO-Challenge>