BikeSpace

BikeSpace Dashboard Dataset Details

Last Updated: December 28, 2025

BikeSpace Data Overview

The BikeSpace Dashboard is an interactive tool designed to provide cyclists and policymakers with data about bike parking issues in Toronto. The aim of showcasing this data is to help inform bike parking infrastructure planning and advocacy.

BikeSpace Dashboard data is based on issues reported through the publicly accessible BikeSpace app. Launched publicly in July 2018, the BikeSpace app allows cyclists to self-report bike parking concerns they come across in the Toronto area.

BikeSpace Dataset Details

The BikeSpace Dashboard dataset currently has one table, with one row per user submission. The table schema is outlined on the following page - **Bike Parking Submissions**.

The API also provides a version history for any submission changes (including creation, modification, or deletion) made after December 24, 2025[1]. Any changes made prior to this date are not included in the version history. The version history can be viewed with the endpoint `https://api-dev.bikespace.ca/api/v2/submissions/{ID}/history`, where {ID} is the Submission ID to check. For additional details of how the versioning functions, see https://sqlalchemy-continuum.readthedocs.io.

[1] See: https://github.com/bikespace/bikespace/pull/295

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Bike Parking Submissions Data Dictionary

A record is generated in the bike parking submissions table when a user successfully submits a bike parking issue report through the BikeSpace app. The following fields are included with the submission:

Field Name	Data Type	Description	Format & Constraints	Source
id	Integer	Unique ID for the submission (displayed as issue identifier on BikeSpace dashboard)	E.g.) 1234	Auto-Generated
latitude	Double	Location of the problem the user encountered	E.g.) 45.55555555 -80.44444444	User-Selected Field (On Map Interface). Map loads with user location from device if enabled; if not, map loads centred on Toronto City Hall.
longitude	Double			
issue_type	Text	Describes the problem the user encountered.	Predetermined categories E.g.) full, damaged, not_provided, abandoned, other Several categories can be selected in one submission.	User-Selected Field Users select from the following categories: • Bike Parking is **not provided** • Bike Parking is **full** • Bike Parking is **damaged** • A bicycle is **abandoned** • Something else **(other)**

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Field Name	Data Type	Description	Format & Constraints	Source
parking_duration	Text	Describes how long the user desired to park (see enum values below)	Predetermined categories E.g.) minutes Only one category can be selected per submission	User-Selected Field “Minutes” is the default if the user does not change the selection. Users select from the following categories: Minutes | Hours | Overnight | Multi-day | Not applicable
parking_time	Datetime	The datetime when the user encountered the issue	YYYY-MM-DD h:mm:ss (newer entries) YYYY-MM-DD hh:mm:ss.ssssss (older entries) (Saved in UTC time)	User-Selected Field Current date-time from the device is the default if the user does not change the selection. Date and time selected by the user.
comments	Text	Additional context about the issue provided by the user	E.g.) No bike rings by the library (Previously limited to 256 characters; limit removed via update July 27, 2024)	User-Generated Field (Open Text Field) - Optional Users are prompted to add any additional details about their issue report. The API processes comments using a profanity filter and replaces any matching phrases with a series of asterisks.
submitted_datetime	Datetime	Describes when the user submission was received by the server	Time-zone aware ISO datetime (YYYY-MM-DDTHH:MM:SS.SSSSSS+00:00)	Auto-Generated

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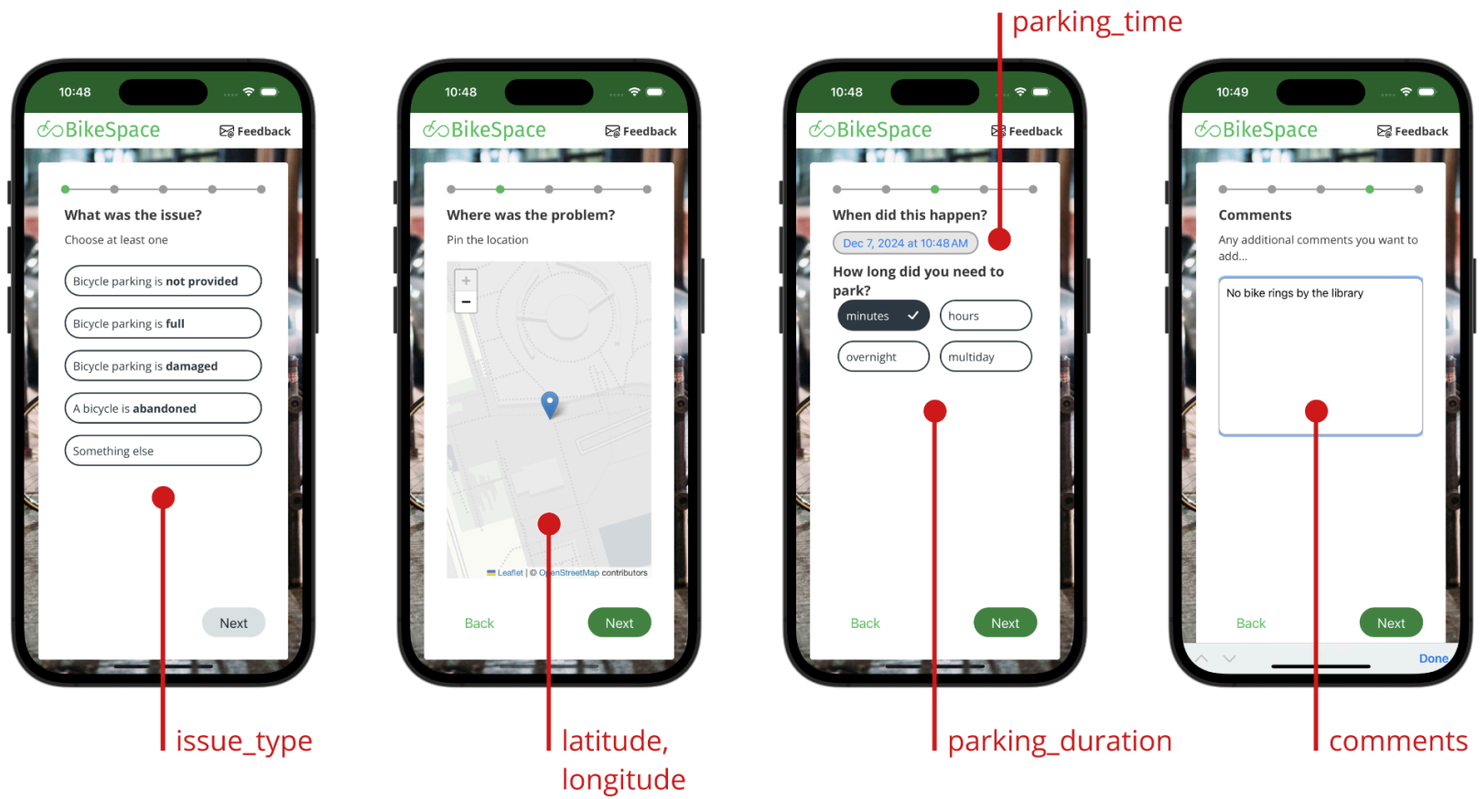
Bike Parking Submissions Data Dictionary - Visual Overview of User Generated Fields

The following 6 fields are user generated and specified by users on the BikeSpace app: issue_type, latitude, longitude, parking_time, parking_duration, comments



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Data Considerations

Data Accuracy and Reliability

The data displayed on the BikeSpace Dashboard is sourced from community-generated submissions. Cyclists report bike parking concerns through the BikeSpace app. Submissions are reviewed by the BikeSpace Volunteer team from time to time. We are working to implement built-in data quality systems as part of the app and dashboard; in the meantime, a filtered and annotated dataset can be provided upon request to bikespaceto@gmail.com.

The following submission IDs are known to be missing and were likely test submissions or invalid data removed from the database prior to the addition of version history on December 24, 2025: 2, 3, 12, 18, 30, 33, 58, 74, 79, 103, 120, 145, 181, 189, 191, 198, 199, 200, 217, 231, 246, 272, 278, 290, 310, 315, 317, 342, 366, 588, 618, 632, 691, 704, 778, 787, 788, 794, 812, 840, 885, 910, 911, 925, 927, 929, 930, 931, 966, 981, 987, 1004, 1034, 1041, 1050, 1064, 1096, 1103, 1107, 1119, 1131, 1134, 1135, 1136, 1139, 1140, 1149, 1218, 1244, 1284, and 1286.

The details for any other submissions deleted after December 24, 2025 can still be viewed using the version history endpoint.

Submissions are deleted if they fit one of the following criteria:

- “Comments” field clearly indicates that the submission was made for testing purposes (e.g. includes the word “test”)
- “Comments” field clearly includes random, non-meaningful input, e.g. a sequence of random letters

Community-Sourced Submissions

The crowd-sourced nature of BikeSpace submissions relies on active participation from the cycling community. While this approach fosters inclusivity, it also introduces potential challenges, such as varying levels of detail in submissions. Ongoing efforts to promote the app primarily focus on dedicated biking groups in Toronto, which may limit broader awareness and accessibility. Additionally, users must possess a certain level of tech savviness, including familiarity with smartphone apps, as well as proficiency in English, which can unintentionally exclude some potential contributors.

Location Tracking

Accurate location data is critical for addressing reported issues. The app pre-populates the location of a bike parking concern using the device’s GPS location (if enabled).. This system is generally reliable in open areas with strong satellite visibility but may encounter inaccuracies in dense urban environments. To address this, users can review and adjust the location before submitting their report, ensuring the data is as precise as possible.

Privacy and Security

The BikeSpace app does not currently collect any personally-identifiable information about users, and does not currently provide user accounts. Cyclists can submit reports without sharing personal information, ensuring anonymity and reducing barriers to participation.

Accessibility and Awareness

While the app is a powerful tool for addressing bike parking issues, its reach is currently limited. Efforts to market the app have primarily targeted dedicated biking communities, which may leave casual cyclists or those unaware of BikeSpace underserved. Additionally, the app's reliance on English may create a language barrier for some users. Expanding awareness and considering multilingual support in the future could help broaden the app's accessibility.