

Datathon 2024: Fields explanation

Data for this challenge is from select counties in the state of Illinois, USA. The timeline of the dataset is from July 2023 to August 2024, the last part of the period is reserved as the validation dataset. Data is conflated from three sources, explained below.

- **ImageData:** Computer Vision Generated data from Restb.ai, detections and insights extracted from Photos of the houses - Only a subset of the data generated by our solutions is present for this challenge. Field Preceded by "ImageData" are based 100% on the photos. The source photos are not provided for this challenge.
- **Listing Data:** Listing Data is provided by MRED (Midwest Real Estate Data), these are recently sold properties, one row per house. Properties, for this challenge, can be identified uniquely by their Listing.ListingIDs
- **Census Data:** Geolocation and census codes are provided from the US census, if a match existed on their API. Census data can also be used to conflate other external datasets that might use census tracts/blocks as identifiers.

General naming of the fields group them in logical sections (i.e. Location related is in Location.___, etc.), This is following the convention of the [RESO dictionary](#). ImageData solutions were also provided following this dictionary when named as such (i.e. features_reso and roomtype_reso).

This dataset must be deleted at the end of the event, in accordance with the signed agreement.

Full fields list explanation

Image Data:

- **ImageData.c1c6** - Related to the Condition of the house - i.e. "How New and well maintained it is" - Score summarizing solely the condition of the property. On a scale from 1.0 (Brand New) to 6.0 (Disrepair), with 1 decimal.
 - **ImageData.q1q6** - Related to the Quality of the house - i.e. "How luxurious or economical are the construction and finishings of the house" - Score summarizing solely the quality of construction of the property. On a scale from 1.0 (luxury) to 6.0 (substandard), with 1 decimal.
- More information on Condition and Quality can be found [here](#).

- **ImageData.features_reso** - A list of all the unique features identified in the property by Restb.ai's RESO feature detection solution. Features defined as per the RESO data dictionary.
- **ImageData.room_type_reso** A list of all the rooms as defined by the RESO data dictionary, identified in the property.
- **ImageData.style.exterior** Top prediction of the Exterior Style solution
- **ImageData.style.stories** Top prediction of the amount of stories/floors from the available photos

Listing Data:

- **Characteristics.LotFeatures** A list of features or a description of the lot included in the sale/lease.
- **Characteristics.LotSizeSquareFeet** The total square footage of the lot.
- **Listing.Dates.CloseDate** This is the date the purchase agreement was fulfilled.
- **Listing.ListingId** The well-known identifier for the listing.
- **Listing.Price.ClosePrice** The amount of money paid by the purchaser to the seller for the property under the agreement.
- **Location.Address.City** The city in the listing address.
- **Location.Address.CountyOrParish** The county, parish or other regional authority.
- **Location.Address.PostalCode** The postal code portion of a street or mailing address.
- **Location.Address.PostalCodePlus4** The last four digits of a nine-digit U.S. ZIP Code.
- **Location.Address.StateOrProvince** Text field containing the accepted postal abbreviation for the state or province.
- **Location.Address.StreetDirectionPrefix** The direction indicator that precedes the listed property's street name.
- **Location.Address.StreetDirectionSuffix** The direction indicator that follows a listed property's street address.
- **Location.Address.StreetName** The street name portion of a listed property's street address.
- **Location.Address.StreetNumber** The street number portion of a listed property's street address.
- **Location.Address.StreetSuffix** The suffix portion of a listed property's street address.

- **Location.Address.UnitNumber** A text field containing the unit number or portion of a larger building or complex that should appear following the street suffix or, if it exists, the street suffix direction in the street address (e.g., Apt G, #55).
- **Location.Address.UnparsedAddress** A text representation of the address with the full civic location as a single entity.
- **Location.Area.SubdivisionName** A neighborhood, community, complex or builder tract.
- **Location.School.HighSchoolDistrict** The name of the high school district having a catchment area that includes the associated property
- **Property.PropertyType** A list of types of properties (e.g., Residential, Lease, Income, Land, Mobile, Commercial Sale).
- **Structure.Basement** A list of information and features about the basement (i.e., None/Slab, Finished, Partially Finished, Crawl Space, Dirt, Outside Entrance, Radon Mitigation).
- **Structure.BathroomsFull** A room containing all four of the four elements constituting a bath: toilet, sink, bathtub, shower head (in tub or stall).
- **Structure.BathroomsHalf** A room containing two of the four elements constituting a bath: toilet, sink, bathtub, shower head (in a tub or stall).
- **Structure.BedroomsTotal** The total number of bedrooms in the dwelling.
- **Structure.BelowGradeFinishedArea** The finished area within the structure that is below ground.
- **Structure.BelowGradeUnfinishedArea** The unfinished area within the structure that is below ground.
- **Structure.Cooling** A list describing the cooling or air conditioning features of the property.
- **Structure.FireplacesTotal** Indicates whether or not the property includes a fireplace.
- **Structure.GarageSpaces** The number of spaces in the garage(s).
- **Structure.Heating** A list describing the heating features of the property.
- **Structure.LivingArea** The total livable area within the structure.
- **Structure.NewConstructionYN** Indicates whether or not the property is newly constructed and has not been previously occupied.
- **Structure.ParkingFeatures** A list of features about or a description of the parking included in the sale/lease.
- **Structure.Rooms.RoomsTotal** The number of rooms in a dwelling.

- **Structure.YearBuilt** The year that an occupancy permit is first granted for the house or other local measure of initial habitability of the build.
- **Tax.Zoning** A division of the city or county into areas of different permissible land uses.
- **UnitTypes.UnitTypeType** This field is a list of the types used in the Unit Type repeating elements. The type is a list of possible unit types (i.e., 1 Bedroom, 2 Bedroom, 3 Bedroom, Studio, Loft, etc.). Each selected item is expected to appear as the type in the related UnitType fields in a flattened implementation.

Census Data:

- **Location.Address.CensusBlock** The smallest geographic unit used by the United States Census Bureau for tabulation of 100-percent data.
- **Location.Address.CensusTract** Geographic region defined for the purpose of taking a census.
- **Location.GIS.Latitude** The geographic latitude of some reference point on the property, specified in degrees and decimal parts.
- **Location.GIS.Longitude** The geographic longitude of some reference point on the property, specified in degrees and decimal parts.