

# Package ‘modeldatatoo’

March 29, 2024

**Title** More Data Sets Useful for Modeling Examples

**Version** 0.3.0

**Description** More data sets used for demonstrating or testing model-related packages are contained in this package. The data sets are downloaded and cached, allowing for more and bigger data sets.

**License** MIT + file LICENSE

**URL** <https://github.com/tidymodels/modeldatatoo>,  
<https://modeldatatoo.tidymodels.org/>

**BugReports** <https://github.com/tidymodels/modeldatatoo/issues>

**Depends** R (>= 3.6)

**Imports** pins

**Suggests** covr, rstudioapi, testthat (>= 3.0.0)

**Config/Needs/website** tidyverse/tidytemplate

**Config/testthat/edition** 3

**Encoding** UTF-8

**RoxygenNote** 7.3.1

**LazyData** true

**NeedsCompilation** no

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building\_complaints    *NYC Building Complaints*

---

## Description

A subset of the complaints received by the Department of Buildings (DOB) in New York City, USA.

## Usage

building\_complaints

## Format

building\_complaints:

A data frame with 4,234 rows and 11 columns:

**days\_to\_disposition** Days to disposition of the complaint

**status** Status of the complaint

**year\_entered** Year the complaint was entered

**latitude, longitude** Geographic coordinates

**borough** Borough

**special\_district** Special district

**unit** Unit dispositioning the complaint

**community\_board** Community board. 3-digit identifier: Borough code = first position, last 2 = community board

**complaint\_category** Complaint category

**complaint\_priority** Complaint priority

## Source

[https://data.cityofnewyork.us/Housing-Development/DOB-Complaints-Received/eabe-havv/about\\_data](https://data.cityofnewyork.us/Housing-Development/DOB-Complaints-Received/eabe-havv/about_data)

---

 data\_animals

*animals data set*


---

## Description

Data set with characteristics of many animals, including the field `text` which is a long-form description of the animal.

## Usage

```
data_animals(...)
```

## Arguments

... Arguments passed to `pins::pin_read()`.

## Details

This data set contains quite a bit of missing data and malformed fields.

## Value

tibble

## tibble print

```
data_animals()
#> # A tibble: 610 x 48
#>   text colour lifespan weight kingdom class phylum diet conservation_status
#>   <chr> <chr> <chr> <chr> <chr> <chr> <chr> <chr> <chr>
#> 1 "Aardv~ Brown~ 23 years 60kg ~ Animal~ Mamm~ Chord~ Omni~ Least Concern
#> 2 "Abyss~ Fawn,~ <NA> <NA> <NA> <NA> <NA> <NA> <NA>
#> 3 "Adeli~ Black~ 10 - 20~ 3kg -- Animal~ Aves Chord~ Carn~ Least Concern
#> 4 "Affen~ Black~ <NA> <NA> <NA> <NA> <NA> <NA> <NA>
#> 5 "Afgha~ Black~ <NA> <NA> <NA> <NA> <NA> <NA> <NA>
#> 6 "Afric~ Grey,~ 60 - 70~ 3,600~ Animal~ Mamm~ Chord~ Herb~ Threatened
#> 7 "Afric~ Black~ 15 - 20~ 1.4kg~ Animal~ Mamm~ Chord~ Omni~ Least Concern
#> 8 "Afric~ Brown~ 8 - 15 ~ 25g -- Animal~ Amph~ Chord~ Carn~ Least Concern
#> 9 "Afric~ Grey,~ 60 - 70~ 900kg~ Animal~ Mamm~ Chord~ Herb~ Endangered
#> 10 "Afric~ Black~ 15 - 20~ 1.4kg~ Animal~ Mamm~ Chord~ Omni~ Least Concern
#> # i 600 more rows
#> # i 39 more variables: order <chr>, scientific_name <chr>, skin_type <chr>,
#> # habitat <chr>, predators <chr>, family <chr>, lifestyle <chr>,
#> # average_litter_size <chr>, genus <chr>, top_speed <chr>,
#> # favourite_food <chr>, main_prey <chr>, type <chr>, common_name <chr>,
#> # group <chr>, size <chr>, distinctive_features <chr>, size_l <chr>,
#> # origin <chr>, special_features <chr>, location <chr>, ...
```

**glimpse()**

```

tibble::glimpse(data_animals())
#> Rows: 610
#> Columns: 48
#> $ text <chr> "Aardvark Classification and Evolution\nAard~
#> $ colour <chr> "Brown, grey, yellow", "Fawn, Red, Blue, Gre~
#> $ lifespan <chr> "23 years", NA, "10 - 20 years", NA, NA, "60~
#> $ weight <chr> "60kg - 80kg (130lbs - 180lbs)", NA, "3kg - ~
#> $ kingdom <chr> "Animalia", NA, "Animalia", NA, NA, "Animali~
#> $ class <chr> "Mammalia", NA, "Aves", NA, NA, "Mammalia", ~
#> $ phylum <chr> "Chordata", NA, "Chordata", NA, NA, "Chordat~
#> $ diet <chr> "Omnivore", NA, "Carnivore", NA, NA, "Herbiv~
#> $ conservation_status <chr> "Least Concern", NA, "Least Concern", NA, NA~
#> $ order <chr> "Tubulidentata", NA, "Sphenisciformes", NA, ~
#> $ scientific_name <chr> "Orycteropus afer", NA, "Pygoscelis adeliae"~
#> $ skin_type <chr> "Hair", NA, "Feathers", NA, NA, "Leather", "~
#> $ habitat <chr> "Sandy and clay soil", NA, "Antarctic land a~
#> $ predators <chr> "Lions, Leopards, Hyenas", NA, "Leopard Seal~
#> $ family <chr> "Orycteropodidae", NA, "Spheniscidae", NA, N~
#> $ lifestyle <chr> "Nocturnal", NA, "Diurnal", NA, NA, "Diurnal~
#> $ average_litter_size <chr> "1", "6", NA, "3", "7", "1", "3", NA, "1", "~
#> $ genus <chr> "Orycteropus", NA, "Pygoscelis", NA, NA, "Lo~
#> $ top_speed <chr> "40kph (25mph)", NA, "72kph (45mph)", NA, NA~
#> $ favourite_food <chr> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, ~
#> $ main_prey <chr> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, ~
#> $ type <chr> NA, "Shorthair", NA, "Terrier", "Hound", NA,~
#> $ common_name <chr> "Aardvark", "Abyssinian", "Adelie Penguin", ~
#> $ group <chr> "Mammal", "Cat", "Bird", "Dog", "Dog", "Mamm~
#> $ size <chr> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, ~
#> $ distinctive_features <chr> NA, "Silky fur and almond shaped eyes", NA, ~
#> $ size_l <chr> "1.05m - 2.20m (3.4ft - 7.3ft)", NA, NA, NA,~
#> $ origin <chr> NA, "Egypt", NA, "Germany", "Afghanistan", N~
#> $ special_features <chr> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, ~
#> $ location <chr> "Sub-Saharan Africa", NA, "Coastal Antarctic~
#> $ number_of_species <chr> "18", NA, "1", NA, NA, "1", "1", "1", "1", "~
#> $ average_clutch_size <chr> NA, NA, "2", NA, NA, NA, NA, NA, NA, NA, "2"~
#> $ size_h <chr> NA, NA, "40cm - 75cm (16in - 30in)", NA, NA,~
#> $ group_behaviour <chr> "Solitary", NA, "Colony", NA, NA, "Herd", "S~
#> $ fun_fact <chr> "Can move up to 2ft of soil in just 15 secon~
#> $ age_of_sexual_maturity <chr> "2 years", NA, "2 - 3 years", NA, NA, "11 - ~
#> $ name_of_young <chr> "Cub", NA, "Chicks", NA, NA, "Calf", "Pup", ~
#> $ prey <chr> "Termites, Ants", NA, "Krill, Fish, Squid", ~
#> $ estimated_population_size <chr> "Unknown", NA, "5 million", NA, NA, "300,000~
#> $ biggest_threat <chr> "Habitat loss", NA, "Rapid ice melt", NA, NA~
#> $ average_lifespan <chr> NA, "15 years", NA, "12 years", "14 years", ~
#> $ most_distinctive_feature <chr> "Long, sticky tongue and rabbit-like ears", ~
#> $ other_name_s <chr> "Antbear, Earth Pig", NA, NA, NA, NA, "Afric~
#> $ gestation_period <chr> "7 months", NA, NA, NA, NA, "20 - 24 months"~

```

```
#> $ age_of_weaning      <chr> "3 months", NA, NA, NA, NA, "6 - 18 months",~
#> $ average_weight      <chr> NA, "4.5kg (10lbs)", NA, "3.6kg (8lbs)", "27~
#> $ temperament        <chr> NA, "Intelligent and curious", NA, "Alert an~
#> $ wingspan            <chr> NA, NA, "35cm - 70cm (14in - 27.5in)", NA, N~
```

## Source

<https://github.com/emilhviltfeldt/animals>

## Examples

```
data_animals()
```

---

```
data_building_complaints
      NYC Building Complaints
```

---

## Description

A subset of the complaints received by the Department of Buildings (DOB) in New York City, USA.

## Usage

```
data_building_complaints(...)
```

## Arguments

... Arguments passed to `pins::pin_read()`.

## Details

A data frame with 4,234 rows and 11 columns:

**days\_to\_disposition** Days to disposition of the complaint

**status** Status of the complaint

**year\_entered** Year the complaint was entered

**latitude, longitude** Geographic coordinates

**borough** Borough

**special\_district** Special district

**unit** Unit dispositioning the complaint

**community\_board** Community board. 3-digit identifier: Borough code = first position, last 2 = community board

**complaint\_category** Complaint category

**complaint\_priority** Complaint priority

**Value**

tibble

**tibble print**

```
data_building_complaints()
#> # A tibble: 4,234 x 11
#>   days_to_disposition status year_entered latitude longitude borough
#>   <dbl> <chr> <fct> <dbl> <dbl> <fct>
#> 1           72 ACTIVE 2023     40.7   -74.0 Brooklyn
#> 2            1 ACTIVE 2023     40.6   -74.0 Brooklyn
#> 3           41 ACTIVE 2023     40.7   -73.9 Queens
#> 4           45 ACTIVE 2023     40.7   -73.8 Queens
#> 5           16 ACTIVE 2023     40.6   -74.0 Brooklyn
#> 6           62 ACTIVE 2023     40.7   -73.8 Queens
#> 7           56 ACTIVE 2023     40.7   -74.0 Brooklyn
#> 8           11 ACTIVE 2023     40.7   -74.0 Brooklyn
#> 9           35 ACTIVE 2023     40.7   -73.8 Queens
#> 10          38 ACTIVE 2023     40.7   -73.9 Queens
#> # i 4,224 more rows
#> # i 5 more variables: special_district <fct>, unit <fct>,
#> #   community_board <fct>, complaint_category <fct>, complaint_priority <fct>
```

**glimpse()**

```
tibble::glimpse(data_building_complaints())
#> Rows: 4,234
#> Columns: 11
#> $ days_to_disposition <dbl> 72, 1, 41, 45, 16, 62, 56, 11, 35, 38, 39, 106, 1, ~
#> $ status <chr> "ACTIVE", "ACTIVE", "ACTIVE", "ACTIVE", "ACTIVE", ~
#> $ year_entered <fct> 2023, 2023, 2023, 2023, 2023, 2023, 2023, 2023, 20~
#> $ latitude <dbl> 40.66173, 40.57668, 40.73242, 40.68245, 40.63156, ~
#> $ longitude <dbl> -73.98297, -74.00453, -73.87630, -73.79367, -73.99~
#> $ borough <fct> Brooklyn, Brooklyn, Queens, Queens, Brooklyn, Quee~
#> $ special_district <fct> None, None, None, None, None, None, None, None, No~
#> $ unit <fct> Q-L, Q-L, SPOPS, Q-L, BKLYN, Q-L, Q-L, SPOPS, Q-L, ~
#> $ community_board <fct> 307, 313, 404, 412, 312, 406, 306, 306, 409, 404, ~
#> $ complaint_category <fct> 45, 45, 49, 45, 31, 45, 45, 49, 45, 45, 4A, 31~
#> $ complaint_priority <fct> B, B, C, B, C, B, B, C, B, B, B, B, C, C, B, B, B, ~
```

**Source**

[https://data.cityofnewyork.us/Housing-Development/DOB-Complaints-Received/eabe-havv/about\\_data](https://data.cityofnewyork.us/Housing-Development/DOB-Complaints-Received/eabe-havv/about_data)

**Examples**

```
data_building_complaints()
```

---

 data\_chimiometrie\_2019

*Chimiometrie 2019 Data Set*


---

## Description

Larsen and Clemmensen (2019) state: "This data set was published as the challenge at the Chimiometrie 2019 conference held in Montpellier and is available at the conference homepage. The data consist of 6915 training spectra and 600 test spectra measured at 550 (unknown) wavelengths. The target was the amount of soy oil (0-5.5%), ucerne (0-40%) and barley (0-52%) in a mixture."

The test set included a distribution shift due to the use of a different instrument and this competition was designed to measure how models might be made to be resistant to such a difference. However, since there are no test set outcomes, we only include the training set here.

There are 6,915 rows and 553 columns. The columns whose names start with `wvlngth_` are the spectral values with the numbers in the column names referring to the order (as opposed to the wavenumber). Fernández Pierna (2020) suggest that the wavelengths range from 1300 2nm to 2398 2nm.

The three outcome columns are "soy\_oil", "lucerne", and "barley".

## Usage

```
data_chimiometrie_2019(...)
```

## Arguments

```
... Arguments passed to pins::pin_read().
```

## Value

A tibble.

## `glimpse()`

```
tibble::glimpse(data_chimiometrie_2019()[, 1:10])
#> Rows: 6,915
#> Columns: 10
#> $ soy_oil <dbl> 2.1, 2.1, 2.1, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, ~
#> $ lucerne <dbl> 23.5712, 23.5712, 23.5712, 25.0000, 25.0000, 25.0000, 25.00~
#> $ barley <dbl> 0, 0, 0, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, ~
#> $ wvlngth_001 <dbl> 0.2076995, 0.2064382, 0.2070081, 0.2057694, 0.2005429, 0.20~
#> $ wvlngth_002 <dbl> 0.2074427, 0.2062003, 0.2067785, 0.2055505, 0.2003232, 0.20~
#> $ wvlngth_003 <dbl> 0.2072212, 0.2059973, 0.2065901, 0.2053678, 0.2001469, 0.20~
#> $ wvlngth_004 <dbl> 0.2070317, 0.2058266, 0.2064396, 0.2052174, 0.2000069, 0.20~
#> $ wvlngth_005 <dbl> 0.2068830, 0.2056964, 0.2063288, 0.2051110, 0.1999092, 0.20~
#> $ wvlngth_006 <dbl> 0.2067773, 0.2056115, 0.2062618, 0.2050571, 0.1998616, 0.20~
#> $ wvlngth_007 <dbl> 0.2067083, 0.2055686, 0.2062386, 0.2050495, 0.1998592, 0.20~
```

**License:**

No license was given for the data.

**Source**

<https://chemom2019.sciencesconf.org/resource/page/id/13.html>

**References**

J. Larsen and L. Clemmensen (2019) "Deep learning for Chemometric and non-translational data," *arXiv.org*, <https://arxiv.org/abs/1910.00391>.

J.A. Fernández Pierna, A. Laborde, L. Lakhal, M. Lesnoff, M. Martin, Y. Roggo, and P. Dardenne (2020) "The applicability of vibrational spectroscopy and multivariate analysis for the characterization of animal feed where the reference values do not follow a normal distribution: A new chemometric challenge posed at the 'Chimiométrie 2019' congress," *Chemometrics and Intelligent Laboratory Systems*, vol 202, p. 104026. doi:10.1016/j.chemolab.2020.104026

**Examples**

```
data_chimiometrie_2019()
```

---

data\_detectors

*Predictions from GPT Detectors*

---

**Description**

Data derived from the paper *GPT detectors are biased against non-native English writers*. The study authors carried out a series of experiments passing a number of essays to different GPT detection models. Juxtaposing detector predictions for papers written by native and non-native English writers, the authors argue that GPT detectors disproportionately classify real writing from non-native English writers as AI-generated.

**Usage**

```
data_detectors(...)
```

**Arguments**

```
... Arguments passed to pins::pin_read().
```



## Details

A data frame with 6,185 rows and 9 columns:

**kind** Whether the essay was written by a "Human" or "AI".

**.pred\_AI** The class probability from the GPT detector that the inputted text was written by AI.

**.pred\_class** The uncalibrated class prediction, encoded as `if_else(.pred_AI > .5, "AI", "Human")`

**detector** The name of the detector used to generate the predictions.

**native** For essays written by humans, whether the essay was written by a native English writer or not. These categorizations are coarse; values of "Yes" may actually be written by people who do not write with English natively. NA indicates that the text was not written by a human.

**name** A label for the experiment that the predictions were generated from.

**model** For essays that were written by AI, the name of the model that generated the essay.

**document\_id** A unique identifier for the supplied essay. Some essays were supplied to multiple detectors. Note that some essays are AI-revised derivatives of others.

**prompt** For essays that were written by AI, a descriptor for the form of "prompt engineering" passed to the model.

## Value

tibble

## tibble print

```
data_detectors()
#> # A tibble: 6,185 x 9
#>   kind .pred_AI .pred_class detector native name model document_id prompt
#>   <fct> <dbl> <fct> <chr> <chr> <chr> <chr> <dbl> <chr>
#> 1 Human 1.00 AI Sapling No Real~ Human 497 <NA>
#> 2 Human 0.828 AI Crossplag No Real~ Human 278 <NA>
#> 3 Human 0.000214 Human Crossplag Yes Real~ Human 294 <NA>
#> 4 AI 0 Human ZeroGPT <NA> Fake~ GPT3 671 Plain
#> 5 AI 0.00178 Human Originality~ <NA> Fake~ GPT4 717 Eleva~
#> 6 Human 0.000178 Human HFOpenAI Yes Real~ Human 855 <NA>
#> 7 AI 0.992 AI HFOpenAI <NA> Fake~ GPT3 533 Plain
#> 8 AI 0.0226 Human Crossplag <NA> Fake~ GPT4 484 Eleva~
#> 9 Human 0 Human ZeroGPT Yes Real~ Human 781 <NA>
#> 10 Human 1.00 AI Sapling No Real~ Human 460 <NA>
#> # i 6,175 more rows
```

## glimpse()

```
tibble::glimpse(data_detectors())
#> Rows: 6,185
#> Columns: 9
#> $ kind <fct> Human, Human, Human, AI, AI, Human, AI, AI, Human, Human, ~
#> $ .pred_AI <dbl> 9.999942e-01, 8.281448e-01, 2.137465e-04, 0.000000e+00, 1.~
```

```
#> $ .pred_class <fct> AI, AI, Human, Human, Human, Human, AI, Human, Human, AI, ~
#> $ detector <chr> "Sapling", "Crossplag", "Crossplag", "ZeroGPT", "Originali~
#> $ native <chr> "No", "No", "Yes", NA, NA, "Yes", NA, NA, "Yes", "No", NA,~
#> $ name <chr> "Real TOEFL", "Real TOEFL", "Real College Essays", "Fake C~
#> $ model <chr> "Human", "Human", "Human", "GPT3", "GPT4", "Human", "GPT3"~
#> $ document_id <dbl> 497, 278, 294, 671, 717, 855, 533, 484, 781, 460, 591, 11,~
#> $ prompt <chr> NA, NA, NA, "Plain", "Elevate using technical", NA, "Plain~
```

## Source

<https://simonpcouch.github.io/detectors/> doi:10.1016/j.patter.2023.100779

## Examples

```
data_detectors()
```

---

data_elevators	<i>elevators data set</i>
----------------	---------------------------

---

## Description

A data set containing information of a subset of the elevators in NYC. The data set has been filtered to contain active elevators with non-missing speed.

## Usage

```
data_elevators(...)
```

## Arguments

... Arguments passed to `pins::pin_read()`.

## Details

**device\_number** Unique identify number for the elevator

**bin** Building Identification Number

**borough** Regional subdivisions of NYC. One of "Manhattan", "Bronx", "Brooklyn", "Queens", or "Staten Island"

**tax\_block** Id for tax block. Smaller than borough

**tax\_lot** Id for tax block. Smaller than tax\_block

**house\_number** House number, very poorly parsed. Use with caution

**street\_name** Street name, very poorly parsed. Use with caution

**zip\_code** Zip code, formatted to 5 digits. 0 and 99999 are marked as NA

**device\_type** Type of device. Most common type is "Passenger Elevator"

**lastper\_insp\_date** Date, refers to the last periodic inspection by the Department of Buildings. These dates will no longer be accurate, as they were collected by November 2015

**approval\_date** Date of approval for elevator

**manufacturer** Name of manufacturer, poorly cleaned. Most assigned NA

**travel\_distance** Distance travelled, not cleaned. Mixed formats

**speed\_fpm** Speed in feet/minute

**capacity\_lbs** Capacity in lbs

**car\_buffer\_type** Buffer type. A buffer is a device designed to stop a descending car or counterweight beyond its normal limit and to soften the force with which the elevator runs into the pit during an emergency. Takes values "Oil", "Spring", and NA

**governor\_type** Governor type, An overspeed governor is an elevator device which acts as a stopping mechanism in case the elevator runs beyond its rated speed

**machine\_type** Machine type, labels unknown.

**safety\_type** Safety type, labels unknown.

**mode\_operation** Operation mode, labels unknown.

**floor\_from** Lowest floor, not cleaned. Mixed formats

**floor\_to** Highest floor, not cleaned. Mixed formats

**latitude** Latitude of elevator

**longitude** Longitude of elevator

**elevators\_per\_building** number of elevators in building ...

## Value

tibble

## tibble print

```
data_elevators()
#> # A tibble: 35,042 x 25
#>   device_number bin    tax_block tax_lot house_number street_name  zip_code
#>   <chr>          <chr>  <chr>    <chr>  <chr>        <chr>    <chr>
#> 1 1D10028      1024795 1021    26     1614        BROADWAY    10019
#> 2 1D10094      1041822 1392    25     53          E 77TH ST    10021
#> 3 1D10097      1038223 1323    1     201         E 49 ST      10017
#> 4 1D10146      1080443 1274    6     40          CENTRAL PARK S~ <NA>
#> 5 1D10200      1085777 1074    24    651         TENTH AVENUE  <NA>
#> 6 1D10301      1002075 181     16    179         FRANKLIN STREET 10013
#> 7 1D10302      1010518 606     4     121         WEST 10 STREET 10011
#> 8 1D10303      1085955 1329    1     915         3 AVENUE      10022
#> 9 1D10304      1044058 1430    5     220         E. 76 ST      10021
#> 10 1D10305     1087468 1951    4     133         MORNINGSIDE AV~ <NA>
#> # i 35,032 more rows
#> # i 18 more variables: borough <fct>, device_type <chr>,
#> #   lastper_insp_date <date>, approval_date <date>, manufacturer <chr>,
```

```
#> #   travel_distance <chr>, speed_fpm <dbl>, capacity_lbs <dbl>,
#> #   car_buffer_type <chr>, governor_type <chr>, machine_type <chr>,
#> #   safety_type <chr>, mode_operation <chr>, floor_from <chr>, floor_to <chr>,
#> #   latitude <dbl>, longitude <dbl>, elevators_per_building <int>
```

### glimpse()

```
tibble::glimpse(data_elevators())
#> Rows: 35,042
#> Columns: 25
#> $ device_number      <chr> "1D10028", "1D10094", "1D10097", "1D10146", "1D~
#> $ bin                <chr> "1024795", "1041822", "1038223", "1080443", "10~
#> $ tax_block         <chr> "1021", "1392", "1323", "1274", "1074", "181", ~
#> $ tax_lot           <chr> "26", "25", "1", "6", "24", "16", "4", "1", "5"~
#> $ house_number      <chr> "1614", "53", "201", "40", "651", "179", "121",~
#> $ street_name       <chr> "BROADWAY", "E 77TH ST", "E 49 ST", "CENTRAL PA~
#> $ zip_code          <chr> "10019", "10021", "10017", NA, NA, "10013", "10~
#> $ borough          <fct> Manhattan, Manhattan, Manhattan, Manhattan, Man~
#> $ device_type       <chr> "Dumbwaiter", "Dumbwaiter", "Dumbwaiter", "Dumb~
#> $ lastper_insp_date <date> 2015-09-18, 2015-08-07, 2015-04-02, 2014-10-15~
#> $ approval_date    <date> 2006-03-07, 2006-05-15, 1998-09-21, 2010-08-02~
#> $ manufacturer     <chr> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,~
#> $ travel_distance  <chr> "16'4\"", NA, "23", "8'", "24 FT", "9'0", "12'0~
#> $ speed_fpm        <dbl> 50, 25, 50, 50, 50, 50, 50, 50, 50, 100, 100, 5~
#> $ capacity_lbs     <dbl> 500, 500, 500, 500, NA, 500, 300, 500, 500, 500~
#> $ car_buffer_type  <chr> "Spring", NA, NA, NA, NA, NA, "Spring", NA, NA,~
#> $ governor_type    <chr> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,~
#> $ machine_type     <chr> NA, "OD", "BD", "BD", NA, "OD", "OD", "BD", "OG~
#> $ safety_type      <chr> "I", NA, "I", NA, NA, "I", "I", NA, "I", NA, NA~
#> $ mode_operation   <chr> "A", "P", "A", "A", NA, "A", "A", "A", "A", "P"~
#> $ floor_from       <chr> "B", "SB", "B", "B", "C", "BAS", "B", "C", "BMT~
#> $ floor_to         <chr> "1", "3", "2", "1", "G", "1", "1", "2", "4", "5~
#> $ latitude         <dbl> 40.76088, 40.77502, 40.75518, 40.76500, 40.7622~
#> $ longitude        <dbl> -73.98391, -73.96256, -73.97079, -73.97573, -73~
#> $ elevators_per_building <int> 11, 2, 1, 1, 2, 2, 1, 1, 1, 5, 5, 1, 2, 1, 1, 2~
```

### Source

<https://github.com/datanews/elevators>

### Examples

```
data_elevators()
```

---

data_hotel_rates	<i>Daily Hotel Rate Data</i>
------------------	------------------------------

---

### Description

A data set to predict the average daily rate for a hotel in Lisbon Portugal.

### Usage

```
data_hotel_rates(...)
```

### Arguments

... Arguments passed to `pins::pin_read()`.

### Details

Data are originally described in Antonio, de Almeida, and Nunes (2019). This version of the data is filtered for one hotel (the "Resort Hotel") and is intended as regression data set for predicting the average daily rate for a room. The data are post-2016; the 2016 data were used to have a predictor for the historical daily rates. See the `hotel_rates.R` file in the `data-raw` directory of the package to understand other filters used when creating this version of the data.

The agent and company fields were changed from random characters to use a set of random names.

The outcome column is `avg_price_per_room`.

#### License:

No license was given for the data; See the reference below for source.

### Value

A tibble.

### Source

<https://github.com/rfordatascience/tidytuesday/tree/master/data/2020/2020-02-11>

### References

Antonio, N., de Almeida, A., and Nunes, L. (2019). Hotel booking demand datasets. *Data in Brief*, 22, 41-49.

### Examples

```
data_hotel_rates()
```

---

`data_pharma_bioreactors`*Pharmaceutical manufacturing monitoring data set*

---

## Description

Samples were collected each day from all bioreactors and glucose was measured using both spectroscopy and the traditional manner. The goal is to create models on the data from the more numerous small-scale bioreactors and then evaluate if these results can accurately predict what is happening in the large-scale bioreactors (see details below).

## Usage

```
data_pharma_bioreactors(...)
```

## Arguments

```
... Arguments passed to pins::pin_read().
```

## Details

### Experimental Background:

Pharmaceutical companies use spectroscopy measurements to assess critical process parameters during the manufacturing of a biological drug. Models built on this process can be used with real-time data to recommend changes that can increase product yield. In the example that follows, Raman spectroscopy was used to generate the data. These data were generated from real data, but have been distinctly modified to preserve confidentiality and achieve illustration purposes.

To manufacture the drug being used for this example, a specific type of protein is required and that protein can be created by a particular type of cell. A batch of cells are seeded into a *bioreactor* which is a device that is designed to help grow and maintain the cells. In production, a large bioreactor would be about 2000 liters and is used to make large quantities of proteins in about two weeks.

Many factors can affect product yield. For example, because the cells are living, working organisms, they need the right temperature and sufficient food (glucose) to generate drug product. During the course of their work, the cells also produce waste (ammonia). Too much of the waste product can kill the cells and reduce the overall product yield. Typically key attributes like glucose and ammonia are monitored daily to ensure that the cells are in optimal production conditions. Samples are collected and off-line measurements are made for these key attributes. If the measurements indicate a potential problem, the manufacturing scientists overseeing the process can tweak the contents of the bioreactor to optimize the conditions for the cells.

One issue is that conventional methods for measuring glucose and ammonia are time consuming and the results may not come in time to address any issues. Spectroscopy is a potentially faster method of obtaining these results if an effective model can be used to take the results of the spectroscopy assay to make predictions on the substances of interest (i.e., glucose and ammonia). However, it is not feasible to do experiments using many large-scale bioreactors. Two parallel experimental systems were used:

- 15 small-scale (5 liters) bioreactors were seeded with cells and were monitored daily for 14 days.
- Three large-scale bioreactors were also seeded with cells from the same batch and monitored daily for 14 days

### Notes on Data:

The intensity values have undergone signal processing up to smoothing. See the reference for more details.

### License:

```
data_pharma_bioreactors()
#> # A tibble: 664,524 x 6
#>   reactor_id  day glucose wave_number intensity size
#>   <chr>      <int> <dbl>     <dbl>     <dbl> <chr>
#> 1 S_01         1  24.7       407    0.909 small
#> 2 S_01         1  24.7       408    0.858 small
#> 3 S_01         1  24.7       409    0.766 small
#> 4 S_01         1  24.7       410    0.627 small
#> 5 S_01         1  24.7       411    0.448 small
#> 6 S_01         1  24.7       412    0.236 small
#> 7 S_01         1  24.7       413    0.00707 small
#> 8 S_01         1  24.7       414   -0.222 small
#> 9 S_01         1  24.7       415   -0.438 small
#> 10 S_01        1  24.7       416   -0.629 small
#> # i 664,514 more rows
```

### Value

tibble

### glimpse()

```
tibble::glimpse(data_pharma_bioreactors())
#> Rows: 664,524
#> Columns: 6
#> $ reactor_id <chr> "S_01", "S_01", "S_01", "S_01", "S_01", "S_01", "S_01", "S_~
#> $ day         <int> 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1~
#> $ glucose     <dbl> 24.74713, 24.74713, 24.74713, 24.74713, 24.74713, 24.74713~
#> $ wave_number <dbl> 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418~
#> $ intensity   <dbl> 0.909439216, 0.857607637, 0.766150467, 0.626862221, 0.4480~
#> $ size        <chr> "small", "small", "small", "small", "small", "small", "sma~
```

### Source

Kuhn, Max, and Kjell Johnson. *Feature engineering and selection: A practical approach for predictive models*. Chapman and Hall/CRC, 2019.

<https://bookdown.org/max/FES/illustrative-data-pharmaceutical-manufacturing-monitoring.html>

**Examples**

```
data_pharma_bioreactors()
```

---

```
data_taxi          Chicago taxi data set
```

---

**Description**

A data set containing information on a subset of taxi trips in the city of Chicago in 2022.

**Usage**

```
data_taxi(...)
```

**Arguments**

```
...           Arguments passed to pins::pin\_read\(\).
```

**Details**

The source data are originally described on the linked City of Chicago data portal. The data exported here are a pre-processed subset motivated by the modeling problem of predicting whether a rider will tip or not.

**tip** Whether the rider left a tip. A factor with levels "yes" and "no".

**distance** The trip distance, in odometer miles.

**company** The taxi company, as a factor. Companies that occurred few times were binned as "other".

**local** Whether the trip started in the same community area as it began. See the source data for community area values.

**dow** The day of the week in which the trip began, as a factor.

**month** The month in which the trip began, as a factor.

**hour** The hour of the day in which the trip began, as a numeric.

Previous releases of this data (with `version = "20230630T214846Z-643d0"`) included additional columns:

**id** A unique identifier for the trip, as a factor.

**duration** The trip duration, in seconds.

**fare** The cost of the trip fare, in USD

**tolls** The cost of tolls for the trip, in USD.

**extras** The cost of extra charges for the trip, in USD.

**total\_cost** The total cost of the trip, in USD. This is the sum of the previous three columns plus tip.

**payment\_type** Type of payment for the trip. A factor with levels "Credit Card", "Dispute", "Mobile", "No Charge", "Prcard", and "Unknown".



**Value**

tibble

**tibble print**

```

data_taxi()
#> # A tibble: 10,000 x 7
#>   tip distance company local dow month hour
#>   <fct> <dbl> <fct> <fct> <fct> <fct> <int>
#> 1 yes 17.2 Chicago Independents no Thu Feb 16
#> 2 yes 0.88 City Service yes Thu Mar 8
#> 3 yes 18.1 other no Mon Feb 18
#> 4 yes 20.7 Chicago Independents no Mon Apr 8
#> 5 yes 12.2 Chicago Independents no Sun Mar 21
#> 6 yes 0.94 Sun Taxi yes Sat Apr 23
#> 7 yes 17.5 Flash Cab no Fri Mar 12
#> 8 yes 17.7 other no Sun Jan 6
#> 9 yes 1.85 Taxicab Insurance Agency Llc no Fri Apr 12
#> 10 yes 1.47 City Service no Tue Mar 14
#> # i 9,990 more rows

```

**glimpse()**

```

tibble::glimpse(data_taxi())
#> Rows: 10,000
#> Columns: 7
#> $ tip <fct> yes, yes, yes, yes, yes, yes, yes, yes, yes, yes, yes, yes, y~
#> $ distance <dbl> 17.19, 0.88, 18.11, 20.70, 12.23, 0.94, 17.47, 17.67, 1.85, 1~
#> $ company <fct> Chicago Independents, City Service, other, Chicago Independen~
#> $ local <fct> no, yes, no, no, no, yes, no, no, no, no, no, no, yes, no~
#> $ dow <fct> Thu, Thu, Mon, Mon, Sun, Sat, Fri, Sun, Fri, Tue, Tue, Sun, W~
#> $ month <fct> Feb, Mar, Feb, Apr, Mar, Apr, Mar, Jan, Apr, Mar, Mar, Apr, A~
#> $ hour <int> 16, 8, 18, 8, 21, 23, 12, 6, 12, 14, 18, 11, 12, 19, 17, 13, ~

```

**Source**

<https://data.cityofchicago.org/Transportation/Taxi-Trips/wrvz-psew>

**Examples**

```
data_taxi()
```

---

internal_board	<i>Internal pins board</i>
----------------	----------------------------

---

**Description**

Pins board used internally to manage download, reading, and caching of data sets.

**Usage**

```
internal_board()
```

**Value**

a pins board

**Examples**

```
internal_board()
```

---

small_fine_foods	<i>small_fine_foods data sets</i>
------------------	-----------------------------------

---

**Description**

Training and testing data set of fine food reviews.

**Usage**

```
attach_small_fine_foods(envir = parent.frame(), quiet = FALSE, ...)
```

**Arguments**

envir	Environment to load data sets into. Defaults to <code>parent.frame()</code> .
quiet	Logical, should function announce what data sets are loaded.
...	Arguments passed to <code>pins::pin_read()</code> .

## Details

These data are from Amazon, who describe it as "This dataset consists of reviews of fine foods from amazon. The data span a period of more than 10 years, including all ~500,000 reviews up to October 2012. Reviews include product and user information, ratings, and a plaintext review."

A subset of the data are contained here and are split into a training and test set. The training set sampled 10 products and retained all of their individual reviews. Since the reviews within these products are correlated, we recommend resampling the data using a leave-one-product-out approach. The test set sampled 500 products that were not included in the training set and selected a single review at random for each.

There is a column for the product, a column for the text of the review, and a factor column for a class variable. The outcome is whether the reviewer gave the product a 5-star rating or not.

## Value

tibble

## tibble print

```
attach_small_fine_foods()
#> The following data sets have been loaded:
#> `training_data`, `testing_data`
#> Silence this message by setting `quiet = TRUE`.
```

```
training_data
#> # A tibble: 4,000 x 3
#>   product      review      score
#>   <chr>      <chr>      <fct>
#> 1 B000J0LSBG "this stuff is not stuffing its not good at all save yo~ other
#> 2 B000EYLDYE "I absolutely LOVE this dried fruit. LOVE IT. Whenever I ~ great
#> 3 B0026LI09A "GREAT DEAL, CONVENIENT TOO. Much cheaper than WalMart and~ great
#> 4 B00473P8SK "Great flavor, we go through a ton of this sauce! I discover~ great
#> 5 B001SAWTNM "This is excellent salsa/hot sauce, but you can get it for ~ great
#> 6 B000FAG90U "Again, this is the best dogfood out there. One suggestion~ great
#> 7 B006BXTCEK "The box I received was filled with teas, hot chocolates, a~ other
#> 8 B002GWH50Y "This is delicious coffee which compares favorably with muc~ great
#> 9 B003R0MFYY "Don't let these little tiny cans fool you. They pack a lo~ great
#> 10 B001E05ZXI "One of the nicest, smoothest cup of chai I've made. Nice m~ great
#> # i 3,990 more rows
```

```
testing_data
#> # A tibble: 1,000 x 3
#>   product      review      score
#>   <chr>      <chr>      <fct>
#> 1 B005GXFP60 "These are the best tasting gummy fruits I have ever eaten.~ great
#> 2 B000G7V394 "I have been a consumer of Snyders hard sourdough pretzels ~ great
#> 3 B004WJAULO "This tastes so bad, I'm considering throwing it away. But~ other
#> 4 B003D4MBOS "This product is way too pricey to have so little chocolate~ other
#> 5 B0030Z95B2 "I bought this for my Mom as a gift to accompany her Dolce ~ great
#> 6 B000LRH4WE "This thing is 7 dollars in US?I know its exported from Cyp~ other
```

```
#> 7 B000Z91SZW "This tea tastes like hot cocoa. Very pleasant experience.~ other
#> 8 B00563VNEI "This product is great for a quick cup of coffee. If you us~ great
#> 9 B0085NFX20 "Grilled out brats, chicken, and burgers for the entire fam~ great
#> 10 B000LRH7XK "I ordered 4 cans of this product. The product is fine, bur~ other
#> # i 990 more rows
```

### glimpse()

```
tibble::glimpse(training_data)
#> Rows: 4,000
#> Columns: 3
#> $ product <chr> "B000J0LSBG", "B000EYLDYE", "B0026LIO9A", "B00473P8SK", "B001S~
#> $ review <chr> "this stuff is not stuffing its not good at all save your ~
#> $ score <fct> other, great, great, great, great, great, other, great, great,~
tibble::glimpse(testing_data)
#> Rows: 1,000
#> Columns: 3
#> $ product <chr> "B005GXFP60", "B000G7V394", "B004WJAULO", "B003D4MBOS", "B0030~
#> $ review <chr> "These are the best tasting gummy fruits I have ever eaten. Ca~
#> $ score <fct> great, great, other, other, great, other, other, great, great,~
```

### Source

<https://snap.stanford.edu/data/web-FineFoods.html>

### Examples

```
attach_small_fine_foods()
```

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