Towards a community-maintained searchable table for data sets easily usable as predictors for spatial machine learning

What is **AwesomeGeodataTable**?
- A WebApp to help geoscientists find available datasets with focus on spatially continuous predictors for machine learning
- Interactively searchable, filterable and sortable table
- Compilation of dataset meta-data

What is the current state?
- Find collaborators  AwesomeGeodataTable@gmail.com
- Incorporate more datasets
- Enhance usability and functionality
- Fix minor bugs and performance issues

**Shiny** WebApp
- Code development
- Adding datasets
- Knowledge
- Reading
- Writing
- Backend
- Frontend
- Github
- shinyapps.io

Google spreadsheet

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Welcome to the Awesome Geodata Table!
To add a new dataset to the AwesomeGeodataTable, please fill out the following input fields with the related meta data.

- **Notes:**

  - Required input fields are annotated with the note **Required** when unfilled
  - For further information about each input field, please just hover over the input field
  - To finally add your dataset, click on the 'Add entry' button at the bottom

**Dataset name**

Please type in the dataset name

**Parameter**

Please choose a parameter or type in a new parameter name

**Tags**

Please choose at least one tag and/or type in a new tag

**Domain**

Please choose a domain

**User**

Please choose a unit or type in a new unit in later equation system

**Resolution**

Minimum (shortest) temporal resolution

Please choose a temporal resolution

Maximum (longest) temporal resolution

Please choose a temporal resolution
**Dataset name**
- Please type in the dataset name
- Required

**Parameter**
- Please choose a parameter or type in a new parameter name
- Required
  - U wind component
  - V wind component
  - U wind component of wind
  - V wind component of wind
  - Wind speed
  - Wind direction
  - Wind gust
  - 2 m temperature
  - 10 m temperature
  - Relative humidity
  - Dewpoint temperature
  - Surface wind speed
  - Surface wind direction

**Minimum (smallest) spatial resolution**
- Required

**Maximum (greatest) spatial resolution**
- Required
- 2013

**Coverage**

**Temporal coverage**
- Start date: [ ]
- End date: [ ]
- Temporal type: [ ]
  - [ ]

**Spatial coverage**
- Please choose a spatial coverage or type in a new tag
- Required

**Add entry**
- Risk of clashing inserts
- Lack of constraints on data types and cell values
- No server or administration required
- No „costs“
Get Engaged

You found a typo or wrong content in one or multiple cells of the table?
Please open an issue with the tag 'content correction'.

You want to improve the code or the functionality of AwesomeGeodataTable?
Please open an issue with the relevant tag.

You have another question?
Reach out to awesomegeodata@gmail.com
Outlook

• Find collaborators
• Incorporate more datasets
• Extend functionality
  • Add Tab for Statistics and Charts for Overview
• Improve usability
  • Filters
  • Column definitions
• Fix bugs and performance issues
  • Faster table rendering with enabled column styling
• Spread the word
R Packages

Data wrangling
readr, googlesheets4, dplyr, purrrr, here, stringr, tidyr, lubridate, here

ShinyApp
shiny, shinythemes, shinyjs, shinyWidgets, shinyBS, shinydashboard, shinyccssloaders, shinyalert, shinyvalidate, shinyFeedback, htmltools, tippy, assertr

table
reactable, reactablefmtr, viridis, hues

others
allcontributors, V8
Thanks for your interest

If you

• think that this is helpful and want to contribute
• want to get started with developing ShinyApps
• want to try it out and provide feedback

please just write me an email:

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AwesomeGeodataTable@gmail.com