## Package 'DSjobtracker'

October 12, 2022

Type Package

**Title** What Skills and Qualifications are Required for Data Science Related Jobs?

Version 0.1.1

Maintainer Thiyanga S. Talagala <ttalagala@sjp.ac.lk>

**Description** Dataset containing information about job listings for data science job roles.

License CC BY 4.0 Encoding UTF-8 LazyData true RoxygenNote 7.1.1

Suggests knitr, rmarkdown, tibble, tidyr, ggplot2, dplyr, magrittr,

testthat, wordcloud2, forcats, viridis

VignetteBuilder knitr

Imports utils

NeedsCompilation no

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Shashini De Silva [ctb] (Data Collection, Data Wrangling),

Thimani Dananjana [ctb] (Data Collection, Data Wrangling),

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V. P. C De Mel [ctb] (Data Collection),

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**Depends** R (>= 3.5.0)

Repository CRAN

**Date/Publication** 2020-12-14 10:00:02 UTC

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DSraw

Data Scientists/Data Analyst/ Statistician Job Tracker

#### Description

Job advertisements

#### Usage

DSraw

#### **Format**

A data frame with 551 rows and 152 variables

**ID** row id

Consultant Name of the consultant

DateRetrieved Date of Data Retrieved

DatePublished Published Date of the Advertisement

Job\_title Name of the job category

Company Name of the Company

**R** If R is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ 

**SAS** If SAS is required -> 1, If not mentioned -> 0

**SPSS** If SPSS is required -> 1, If not mentioned -> 0

**Python** If Python is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ 

**MAtlab** If Matlab is required -> 1, If not mentioned -> 0

Scala If Scala is required -> 1, If not mentioned -> 0

C# If C# is required -> 1, If not mentioned -> 0

MS Word If knowledge in MS Word is required -> 1, If not mentioned -> 0

Ms Excel If knowledge in MS Excel is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ 

**OLE/DB** If knowledge in OLE/DB is required -> 1, If not mentioned -> 0

Ms Access If Ms Access is required -> 1, If not mentioned -> 0

**Ms PowerPoint** If knowledge in Ms Powerpoint is required -> 1, If not mentioned -> 0

**Spreadsheets** If knowledge in Spreadsheets is required -> 1, If not mentioned -> 0

Data\_visualization If knowledge inData Visualization is required -> 1, If not mentioned -> 0

**Presentation\_Skills** If Presentation Skills are required -> 1, If not mentioned -> 0 **Communication** If Communication skills are required -> 1, If not mentioned -> 0 **BigData** If knowledge in Big Data analysis is required -> 1, If not mentioned -> 0 **Data warehouse** If knowledge in Data Warehouse is required -> 1, If not mentioned -> 0 **cloud storage** If knowledge in Cloud Storage is required -> 1, If not mentioned -> 0 **Google\_Cloud** If knowledge in Google Cloud is required -> 1, If not mentioned -> 0 **AWS** If knowledge in AWS is required -> 1, If not mentioned -> 0 Machine\_Learning If knowledge in Machine Learning is required -> 1, If not mentioned -> 0 **Deep Learning** If knowledge in Deep Learning is required -> 1, If not mentioned -> 0 Computer\_vision If knowledge in Computer Vision is required -> 1, If not #' mentioned -> 0 **Java** If Java is required -> 1, If not mentioned -> 0 C++ If C++ is required -> 1, If not mentioned -> 0 C If C is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ **Linux/Unix** If knowledge in Linux/Unix is required -> 1, If not mentioned -> 0 **SQL** If SQL is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ **NoSQL** If NoSQL is required -> 1, If not mentioned -> 0 **RDBMS** If knowledge in RDBMS is required -> 1, If not mentioned -> 0 **Oracle** If knowledge in Oracle is required -> 1, If not mentioned -> 0 **MySQL** If MYSQL is required -> 1, If not mentioned -> 0 **PHP** If PHP is required -> 1, If not mentioned -> 0 Flash\_Actionscript If knowledge in Flash Action Script is required -> 1, If not mentioned -> 0 **SPL** If knowledge in SPL is required -> 1, If not mentioned -> 0 web\_design\_and\_development\_tools If knowledge in Web Design and Development Tools is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ **Wordpress** If knowledge in Wordpress is required -> 1, If not mentioned -> 0 **AI** If Artificial Intelligence is required -> 1, If not mentioned -> 0 Natural Language Processing(NLP) If knowledge in NLP is required -> 1, If not mentioned -> Microsoft Power BI If knowledge in Microsoft Power BI is required -> 1, If not mentioned -> 0 **Google\_Analytics** If knowledge in Google Analytics is required -> 1, If not mentioned -> 0 graphics\_and\_design\_skills If Graphic and Design Skills are required -> 1, If not mentioned -> **Data\_marketing** If Data Marketing abillity is required -> 1, If not mentioned -> 0 **SEO** If knowledge in SEO is required -> 1, If not mentioned -> 0 Content Management If knowledge in Content Management is required -> 1, If not mentioned **Tableau** If knowledge in Tableau is required -> 1, If not mentioned -> 0

**D3** If knowledge in D3 is required -> 1, If not mentioned -> 0

**Alteryx** If knowledge in Alteryx is required -> 1, If not mentioned -> 0

**KNIME** If knowledge in KNIME is required -> 1, If not mentioned -> 0

**Spotfire** If knowledge in Spotfire is required -> 1, If not mentioned -> 0

**Spark** If knowledge in Spark is required -> 1, If not mentioned -> 0

S3 If knowledge in S3 is required -> 1, If not mentioned -> 0

**Redshift** If knowledge in Redshift is required -> 1, If not mentioned -> 0

**DigitalOcean** If knowledge in Digital Ocean is required -> 1, If not mentioned -> 0

**Javascript** If Java Script is required -> 1, If not mentioned -> 0

**Kafka** If knowledge in Kafka is required -> 1, If not mentioned -> 0

**Storm** If knowledge in Storm is required -> 1, If not mentioned -> 0

**Bash** If knowledge in Bash is required -> 1, If not mentioned -> 0

**Hadoop** If knowledge in Hadoop is required -> 1, If not mentioned -> 0

**Data\_Pipelines** If knowledge in Data Pipelines is required -> 1, If not mentioned -> 0

MPP Platforms If MPP Platforms is required ->1, If not mentioned-0

**Olik** If Olik is required ->1, If not mentioned ->0

**Pig** If Pig is required ->1,If not mentioned ->0

**Hive** If Hive is required ->1, If not mentioned ->0

**Tensorflow** If Tensorflow is required ->1.If not mentioned ->0

Map/Reduce If Map/Reduce is required ->1, If not mentioned ->0

Impala If Impala is required ->1, If not mentioned ->0

**Solr** If Sloris required ->1,If not mentioned ->0

**Teradata** If Teradata is required ->1, If not mentioned ->0

**MongoDB** If MonoDB is required ->1, If not mentioned ->0

**Elasticsearch** If Elasticsearch is required ->1, If not mentioned ->0

**YOLO** If YOLO is required-1, If not mentioned-0

agile execution If agile execution is required->1, If not mentioned->0

Data management If the knowledge in data management is required->1, If not mentioned->0

pyspark If pyspark is required->1, If not mentioned->0

**Data\_mining** If the knowledge in data mining is required->1, If not mentioned->0

Data\_science If the knowledge in data science is required->1, If not mentioned->0

Web\_Analytic\_tools If the knowledge in Web Analytic tools is required->1, If not mentioned->0

**IOT** If IOT is required->1, If not mentioned->0

Numerical\_Analysis If the knowledge in Numerical Analysis is required->1, If not mentioned->0

**Economic** If the knowledge in Economic is required->1, If not mentioned->0

Finance\_Knowledge If Finance\_Knowledge is required->1, If not mentioned->0

Investment\_Knowledge If Investment Knowledge is required->1, If not mentioned->0

**Problem\_Solving** If the ability of Problem Solving is required->1, If not mentioned->0

Korean\_language If the ability of speaking Korean language is required->1, If not mentioned->0

Bash\Linux Scripting If Bash\ Linux Scripting is required->1, If not mentioned->0

Knowledge\_in Required knowledge to do a particular job ,If not mentioned->NA

**Experience** Minimum experience required for a particular job

City City where the company is located in

Location Country where the company is located in

Educational\_qualifications Required educational qualifications

Salary Amount of salary

**Team\_Handling** If the ability of Team Handling is required-1, If not mentioned-0

Debtor\_reconcilation If the ability of Debtor reconciliation is required-1, If not mentioned-0

Payroll\_management If the ability of Payroll management is required-1, If not mentioned-0

Bayesian If Bayesian knowledge is required-1, If not mentioned-0

Optimization If Optimization knowledge is required-1, If not mentioned-0

Bahasa Malaysia If Bahasa Malaysia is required-1, If not mentioned-0

**English proficiency** If English proficiency is required-1, If not mentioned-0

URL Web address of a particular job advertisement

**Search\_Term** web search term of a particular job advertisement

X109 Columns with null values

X110 Columns with null values

X111 Columns with null values

X112 Columns with null values

X113 Columns with null values

X114 Columns with null values

X115 Columns with null values

X116 Columns with null values

X117 Columns with null values

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- X130 Columns with null values
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- X133 Columns with null values
- **X134** Columns with null values
- X135 Columns with null values
- X136 Columns with null values
- X137 Columns with null values
- X138 Columns with null values
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- X147 Columns with null values
- X148 Columns with null values
- X149 Columns with null values
- X150 Columns with null values
- X151 Columns with null values
- X152 Columns with null values

#### Source

Collected and entered by BSc (Hons) Statistics undegraduates - 2020

#### **Examples**

data(DSraw)
head(DSraw)
summary(DSraw)

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**DStidy** 

Data Scientists/Data Analyst/ Statistician Job Tracker

#### **Description**

Job advertisements

#### Usage

DStidy

#### **Format**

A data frame with 430 rows and 114 variables

ID row id

Consultant Name of the consultant

DateRetrieved Date of Data Retrieved

DatePublished Published Date of the Advertisement

Job\_title Name of the job category

**Company** Name of the Company

**R** If R is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ 

**SAS** If SAS is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ 

**SPSS** If SPSS is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ 

**Python** If Python is required -> 1, If not mentioned -> 0

**MAtlab** If Matlab is required -> 1, If not mentioned -> 0

Scala If Scala is required -> 1, If not mentioned -> 0

**C\_Sharp** If C# is required -> 1, If not mentioned -> 0

**MS\_Word** If knowledge in MS Word is required -> 1, If not mentioned -> 0

Ms\_Excel If knowledge in MS Excel is required -> 1, If not mentioned -> 0

**OLE\_DB** If knowledge in OLE/DB is required -> 1, If not mentioned -> 0

Ms\_Access If Ms Access is required -> 1, If not mentioned -> 0

Ms\_PowerPoint If knowledge in Ms Powerpoint is required -> 1, If not mentioned -> 0

**Spreadsheets** If knowledge in Spreadsheets is required -> 1, If not mentioned -> 0

**Data\_visualization** If knowledge inData Visualization is required -> 1, If not mentioned -> 0

**Presentation\_Skills** If Presentation Skills are required -> 1, If not mentioned -> 0

**Communication** If Communication skills are required -> 1, If not mentioned -> 0

**BigData** If knowledge in Big Data analysis is required -> 1, If not mentioned -> 0

Data\_warehouse If knowledge in Data Warehouse is required -> 1, If not mentioned -> 0

cloud\_storage If knowledge in Cloud Storage is required -> 1, If not mentioned -> 0

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**Google\_Cloud** If knowledge in Google Cloud is required -> 1, If not mentioned -> 0 **AWS** If knowledge in AWS is required -> 1, If not mentioned -> 0 Machine Learning If knowledge in Machine Learning is required -> 1, If not mentioned -> 0 **Deep Learning** If knowledge in Deep Learning is required -> 1, If not entioned -> 0 **Computer vision** If knowledge in Computer Vision is required -> 1, If not mentioned -> 0 **Java** If Java is required -> 1, If not mentioned -> 0 **Cpp** If C++ is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ C If C is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ **Linux Unix** If knowledge in Linux/Unix is required -> 1, If not mentioned -> 0 **SQL** If SQL is required -> 1, If not mentioned -> 0 **NoSQL** If NoSQL is required -> 1, If not mentioned -> 0 **RDBMS** If knowledge in RDBMS is required -> 1, If not mentioned -> 0 **Oracle** If knowledge in Oracle is required -> 1, If not mentioned -> 0 MySQL If MYSQL is required -> 1, If not mentioned -> 0 **PHP** If PHP is required -> 1, If not mentioned -> 0 **Flash Actionscript** If knowledge in Flash Action Script is required -> 1, If not mentioned -> 0 **SPL** If knowledge in SPL is required -> 1, If not mentioned -> 0 web design and development tools If knowledge in Web Design and Development Tools is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ **Wordpress** If knowledge in Wordpress is required -> 1, If not mentioned -> 0 **AI** If Artificial Intelligence is required -> 1, If not mentioned -> 0 Natural\_Language\_Processing(NLP) If knowledge in NLP is required -> 1, If not mentioned -> 0 Microsoft\_Power\_BI If knowledge in Microsoft Power BI is required -> 1, If not mentioned -> 0 Google\_Analytics If knowledge in Google Analytics is required -> 1, If not mentioned -> 0 graphics\_and\_design\_skills If Graphic and Design Skills are required -> 1, If not mentioned -> **Data\_marketing** If Data Marketing abillity is required -> 1, If not mentioned -> 0 **SEO** If knowledge in SEO is required -> 1, If not mentioned -> 0 Content Management If knowledge in Content Management is required -> 1, If not mentioned ->0**Tableau** If knowledge in Tableau is required -> 1, If not mentioned -> 0 **D3** If knowledge in D3 is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ **Alteryx** If knowledge in Alteryx is required -> 1, If not mentioned -> 0 **KNIME** If knowledge in KNIME is required -> 1, If not mentioned -> 0 **Spotfire** If knowledge in Spotfire is required -> 1, If not mentioned -> 0 **Spark** If knowledge in Spark is required -> 1, If not mentioned -> 0

S3 If knowledge in S3 is required  $\rightarrow 1$ , If not mentioned  $\rightarrow 0$ 

**Redshift** If knowledge in Redshift is required -> 1, If not mentioned -> 0

**DigitalOcean** If knowledge in Digital Ocean is required -> 1, If not mentioned -> 0

**Javascript** If Java Script is required -> 1, If not mentioned -> 0

**Kafka** If knowledge in Kafka is required -> 1, If not mentioned -> 0

**Storm** If knowledge in Storm is required -> 1, If not mentioned -> 0

**Bash** If knowledge in Bash is required -> 1, If not mentioned -> 0

**Hadoop** If knowledge in Hadoop is required -> 1, If not mentioned -> 0

**Data\_Pipelines** If knowledge in Data Pipelines is required -> 1, If not mentioned -> 0

**MPP\_Platforms** If MPP Platforms is required ->1,If not mentioned-0

Qlik If Qlik is required ->1, If not mentioned ->0

Pig If Pig is required ->1, If not mentioned ->0

**Hive** If Hive is required ->1,If not mentioned ->0

**Tensorflow** If Tensorflow is required ->1,If not mentioned ->0

Map Reduce If Map/Reduce is required ->1, If not mentioned ->0

Impala If Impala is required ->1, If not mentioned ->0

**Solr** If Sloris required ->1, If not mentioned ->0

**Teradata** If Teradata is required ->1, If not mentioned ->0

MongoDB If MonoDB is required ->1,If not mentioned ->0

**Elasticsearch** If Elasticsearch is required ->1,If not mentioned ->0

YOLO If YOLO is required-1, If not mentioned-0

agile\_execution If agile execution is required->1, If not mentioned->0

Data\_management If the knowledge in data management is required->1, If not mentioned->0

**pyspark** If pyspark is required->1, If not mentioned->0

**Data\_mining** If the knowledge in data mining is required->1, If not mentioned->0

Data science If the knowledge in data science is required->1, If not mentioned->0

Web\_Analytic\_tools If the knowledge in Web Analytic tools is required->1, If not mentioned->0

**IOT** If IOT is required->1, If not mentioned->0

Numerical\_Analysis If the knowledge in Numerical Analysis is required->1, If not mentioned->0

Economic If the knowledge in Economic is required->1, If not mentioned->0

Finance\_Knowledge If Finance\_Knowledge is required->1, If not mentioned->0

Investment\_Knowledge If Investment Knowledge is required->1, If not mentioned->0

**Problem\_Solving** If the ability of Problem Solving is required->1, If not mentioned->0

Korean\_language If the ability of speaking Korean language is required->1, If not mentioned->0

**Bash\_Linux\_Scripting** If Bash\Linux Scripting is required->1, If not mentioned->0

**Knowledge\_in** Required knowledge to do a particular job ,If not mentioned->NA

City City where the company is located in

**Location** Country where the company is located in

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Educational\_qualifications Required educational qualifications

Salary Amount of salary

Team\_Handling If the ability of Team Handling is required-1, If not mentioned-0

**Debtor\_reconcilation** If the ability of Debtor reconciliation is required-1, If not mentioned-0

Payroll\_management If the ability of Payroll management is required-1, If not mentioned-0

Bayesian If Bayesian knowledge is required-1, If not mentioned-0

**Optimization** If Optimization knowledge is required-1, If not mentioned-0

Bahasa\_Malaysia If Bahasa Malaysia is required-1, If not mentioned-0

English\_proficiency If English proficiency is required-1, If not mentioned-0

**URL** Web address of a particular job advertisement

Search\_Term web search term of a particular job advertisement

Job\_Category Category of the job (i.e. "Data Science", "Data Analyst" etc.)

Minimum\_Years\_of\_experience Minimum years of experience needed for the job

Experience Minimum experience required for a particular job

Experience\_Category Number of years of experience in binned into categories

Job\_Country Country where job is located in

Edu\_Category Type of educational qualification needed

Minimum\_Salary Starting salary proposed in respective currency

Salary\_Basis Payment basis of salary (i.e. "unspecified", "hourly", "daily", "monthly", "yearly")

#### Source

Data wrangling part was done by Chammika R. De Mel, Shashini D. Silva and Thimani D Ranathunga, BSc (Hons)Staistics, University of Sri Jayewardenepura.

#### **Examples**

data(DStidy)
head(DStidy)
summary(DStidy)

open\_dashboard

Visualize the dataset in a dashboard

#### Description

Opens the dashboard containing visualizations of the dataset.

The dashboard is hosted at https://scs-fas-sjp.netlify.app/dsjobtrackervisualisation/dataviz

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## Usage

```
open_dashboard()
```

### **Details**

The data wrangling dashboard was created by Jayani Lakshika

## Examples

open\_dashboard()

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