

Super-Curricular Guide: Data & Analytics



What Does UCAS Say...?

Entry Requirements:

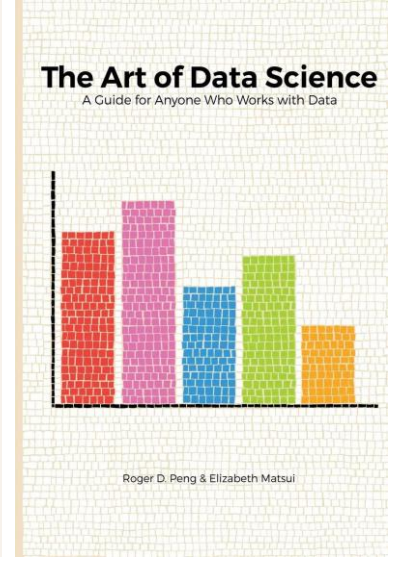
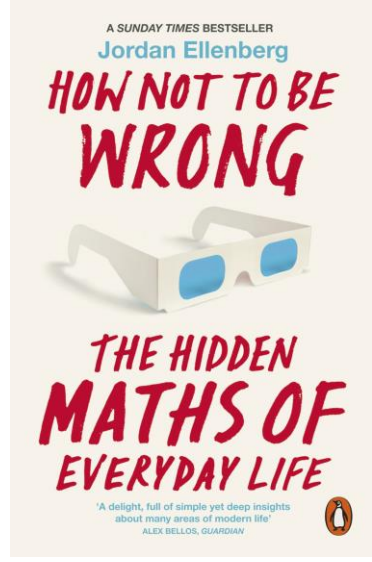
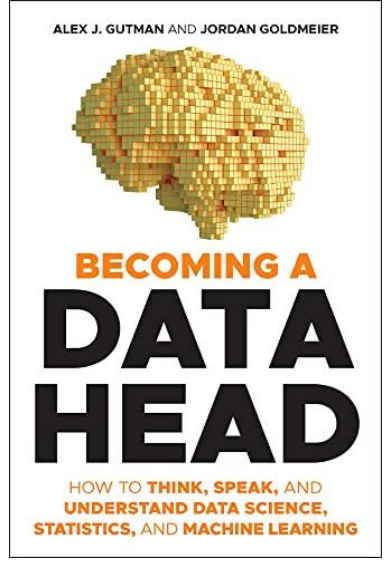
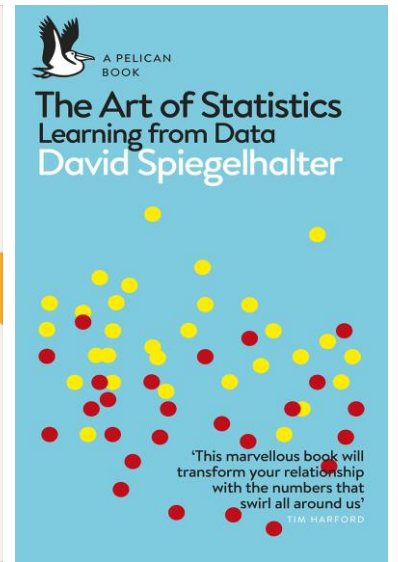
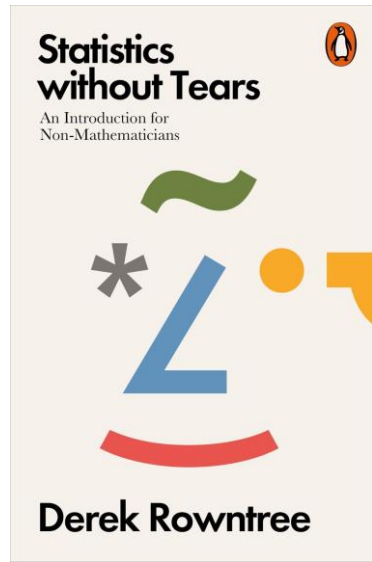
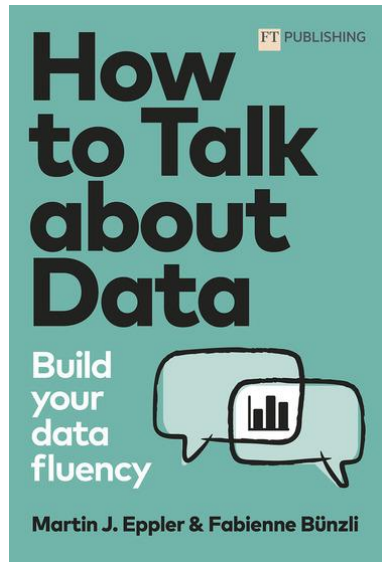
A levels – To get on to a degree in this subject area you will usually require a minimum of two A levels, with three A levels and A/B grades required for the most popular courses. Entry requirements range from BBC to A*AA, with the universities and colleges most commonly asking for AAB. Maths A level is normally required, with some courses also asking for further maths. Other useful subjects to hold for maths degrees include; physics, chemistry, biology, economics or computer science.

In addition to A levels or equivalent you will also need five GCSEs (A-C) including science, English, and maths. A few courses may require some applicants to sit an additional aptitude test in mathematics. Maths graduates are employed in a wide range of different career sectors. The key areas of employment include:

- banking and finance
- business consulting and management
- construction and engineering
- IT and computing
- local and central government
- pharmaceuticals
- teaching and research



Read!





Click!

Plotly Express Cheat Sheet

Plotly Express is a high-level data visualization library in Python built on top of Plotly, a low-level library for creating interactive visualizations. It provides a simple and expressive API for creating a wide range of interactive charts.

Getting Started

Install the Python Package & pip install plotly

Importing Plotly express

loading default dataset and performing the query

Creating figures interactively. Customise the figure for e.g. categorical column, this string, rotate labels and axis, width in pixels, height in pixels.

```
fig = px.scatter(
    df,
    x="year",
    y="lifeExp",
    color="country",
    title="Life Expectancy Per Country",
    labels={
        "year": "Time Line (Year)",
        "lifeExp": "Life Expectancy",
    },
    width=500,
    height=400,
)
```

Life Expectancy Per Country

Common Chart Types

Scatter Plot

```
px.scatter(
    df,
    x="year",
    y="lifeExp",
    color="country",
    margin={"r":50, "t":0, "b":0, "l":0},
    hover_name="year", "lifeExp",
)
```

Pie Chart

```
px.pie(
    df,
    values=["lifeExp", "name"],
    labels=["Life Expectancy of Country", "Country"],
)
```

Bar Chart

```
px.bar(
    df,
    x="year",
    y="lifeExp",
    color="country",
)
```

Bar Plot

```
px.bar(
    df,
    x="year",
    y="lifeExp",
    color="country",
)
```

Customizing plots

You can customize almost everything, for example, the color, opacity, and line width of the histogram.

```
fig = px.histogram(
    df,
    x="lifeExp",
)
fig.update_traces(
    marker=dict(
        color="black",
        opacity=0.5,
    ),
    line=dict(
        color="red",
        width=2,
    ),
)
```

However, you can customize the layout, for example, font, plot background, legend, and axis.

```
fig.update_layout(
    font=dict(
        family="Courier",
        size=12,
        color="black",
    ),
    plot_bgcolor="white",
)
```

OnlyDataJobs Blog
The latest employer and jobseeker advice from the world of data and analytics

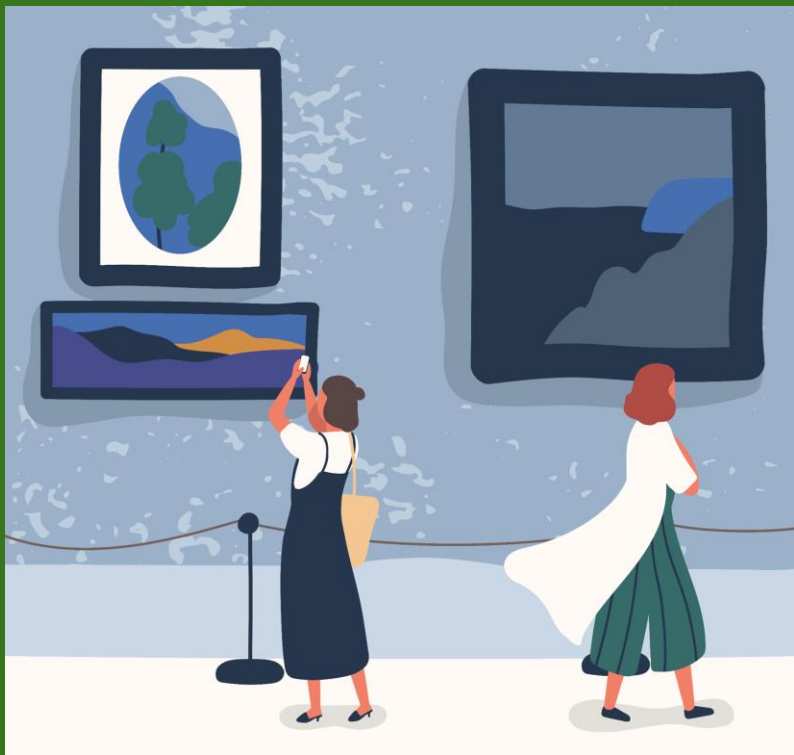
Careers and Recruitment Advice for Data Science & Analytics

Whether you are a jobseeker or employer in data & analytics, get all the latest expert job seeking and recruitment advice to help you stay ahead of the competition!

Data Analytics

Data analytics is the process of analyzing raw data to draw out meaningful insights—insights which are used to drive smart business decisions.

towards data science



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JAN 19 2023, 10:00 AM
Data Fest 2023
 TRAINING DATA SKILLS WORKSHOP

APR 4 2023, 11:00 AM
An introduction to time series analysis and forecasting
 ONLINE
 TRAINING DATA SKILLS WORKSHOP

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TechFest's Programme Overview 2023
 From January 01, 2023 until December 31, 2023
 Check out our Programme Overview for 2023.

Spring into Science with TechFest
 From March 20, 2023 until April 02, 2023
 At Various venues in Aberdeen City Categories: Festival, Digital Festival - Public Programme
 Spring into Science with TechFest at our annual Public Festival this March!

Off-Grid & Green: Discover Greyhope Bay's journey as an eco-visitor attract
 Starting on March 28, 2023 14:00
 At Greyhope Bay Centre Categories: Public Programme Tags: sustainability, greenenergy, offgrid
 Join us at the Greyhope Bay Centre where we'll be showcasing our state-of-the-art facilities and share our story so far operating as an off-grid, eco attraction! We'll be discussing the environmental benefits of these systems and the challenges we've faced during our first year of being open to the public. This event can be attended in-person or livestreamed online. Entry is Free but booking required for in-person attendance as spaces are limited

So you want to be a Forensic Scientist?
 Starting on March 29, 2023 19:00
 At The Sir Ian Wood Building, Robert Gordon University, Garthdee Road, Aberdeen, AB10 7GJ
 Categories: Public Programme Tags: forensics, forensicscience, detective
 It is usually the kids that get to have all the fun, but not this time! This event is for adults to come and play at being a Forensic Scientist at the RGU forensic lab. Help put the pieces of the case together and try to solve the crime. Age range: 18+

CareerFoundry Events

Grow your knowledge, tap into a new skill, or learn how to forge a tech career from scratch. Our events are designed to get you on your way, no matter where you are in your career—or in the world! Browse our upcoming and on-demand events to get started.



Watch!





Listen!

Analytics
Power Hour

 DATA
SKEPTIC

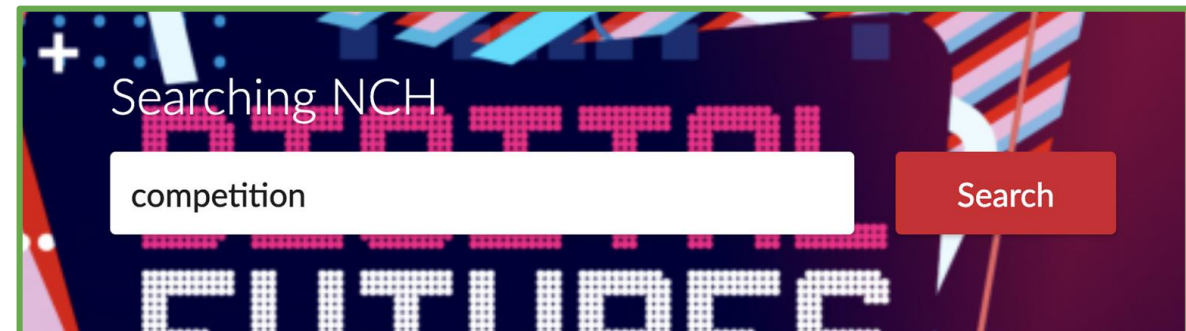
 Data Futurology

 WOMEN
IN DATA



Compete!

Secret Life of Data: Short Story Competition





Experience!

Volunteer With Us

We are a volunteer-led community, and our programmes run on the **invaluable time and talents of incredible pro bono data scientists**. They give their expertise to help social change organisations make better use of data, build their internal data science capacity, and increase their confidence. Outside of specific DataDive projects and DataCorps, our core volunteers run many aspects of our **day-to-day work, including scoping projects, assessing impact and onboarding new volunteers**. Find out what you could contribute below!



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Start typing to search 4 datasets...

Try typing: [volunteering](#), [community jobs](#), [affordability](#), [affordable homes](#), [apprenticeships](#), [belonging...](#)

volunteering x

Volunteering Work Among Adults, Borough

Updated 6 years ago

Department for Culture, Media and Sport

This data shows levels of volunteering among the adult population (16+) by borough and region. The exact question posed to respondents was: 'During the last 12 months, have you done any voluntary work?' Data is from the Taking Part survey only available under licence from DCMS. Taking Part survey has a Official Statistics seal from ONS The data shows combined scores from 3 years of the survey, excluding 2009/10 when there was no volunt...

(54.5 kB)

taking-part voluntary-work volunteering

Local Authority Region

Keep a Super-Curricular Activities Record for Personal Statement and Interviews

- What did you do?
- What was interesting, significant and relevant?
- How was your perception or view of the subject matter changed?
- What did you agree or disagree with and why?
- What further questions were raised?
- What could you do to explore these questions further?
- What skills or understanding were developed?

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