

Gabriela de Queiroz

Program Director,
Open Source, Data & AI Technologies @ IBM

- Founder of **R-Ladies** (rladies.org)
- Founder of **AI Inclusive** (ai-inclusive.org)
- Member of **R Foundation** (r-project.org)



- B.S. in Statistics
- MSc. in Epidemiology
- MSc. in Statistics

**Data Scientist + Developer Advocate + Open Source Developer + Manager +
Statistician + Epidemiologist + Community Builder + Mentor + Speaker**



R-Ladies

rladies.org

204

Chapters



57

Countries

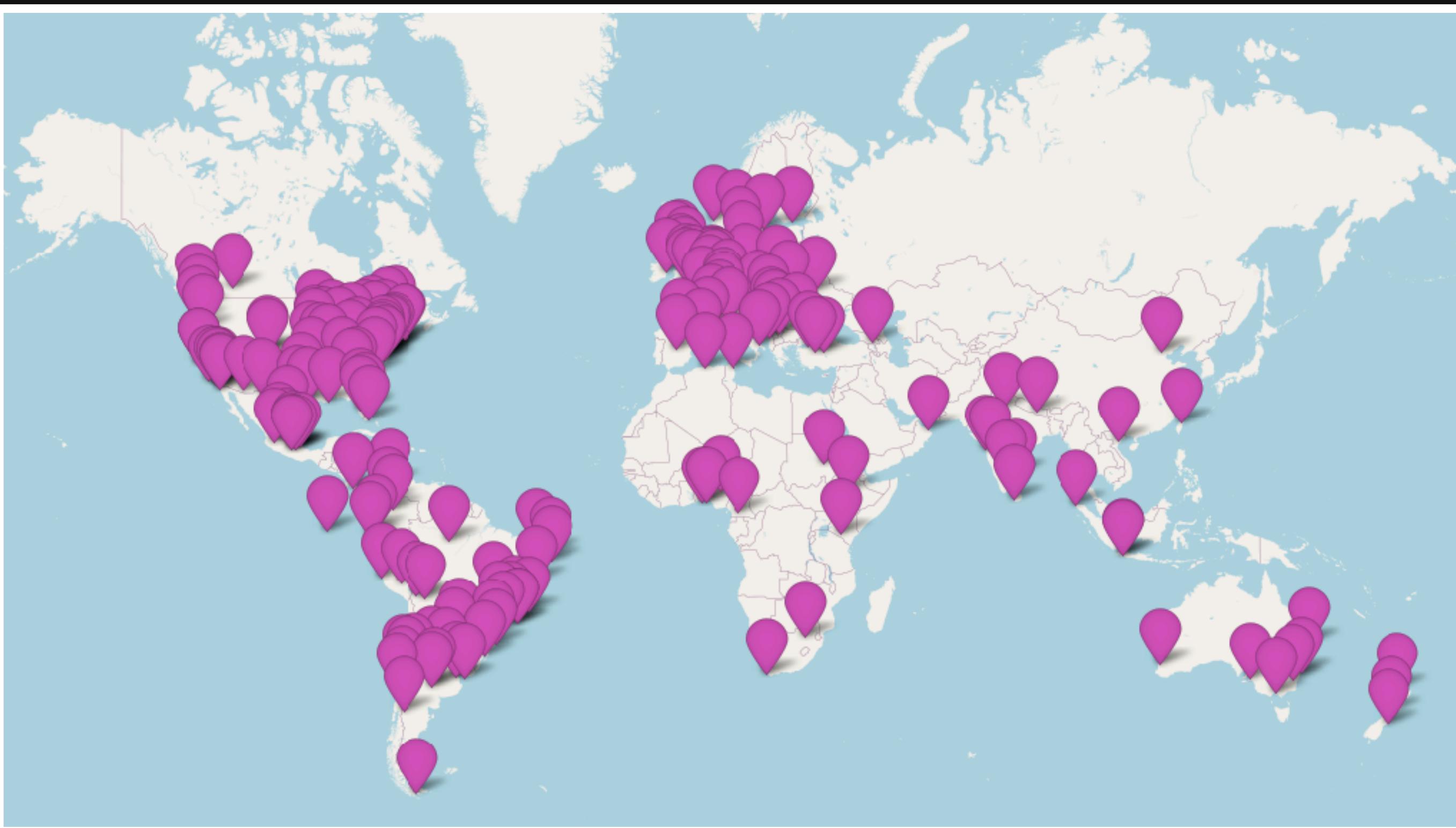


85648

Members



Worldwide organization that promotes diversity in the R community via meetups and mentorship in a friendly and safe environment





AI Inclusive

Together, we are building a community to make **AI** more **inclusive** to everyone.

Mission: Increase the representation and participation of minority groups in Artificial Intelligence

- Website: ai-inclusive.org
- Twitter: [@bit.ly/ai-inclusive-twitter](https://twitter.com/ai_inclusive)
- Instagram: [@bit.ly/ai-inclusive-instagram](https://www.instagram.com/ai_inclusive)



Learn valuable data skills for free!

AI Inclusive & FourthBrain

Scholarship Round 1:
Women and Under-Represented Genders

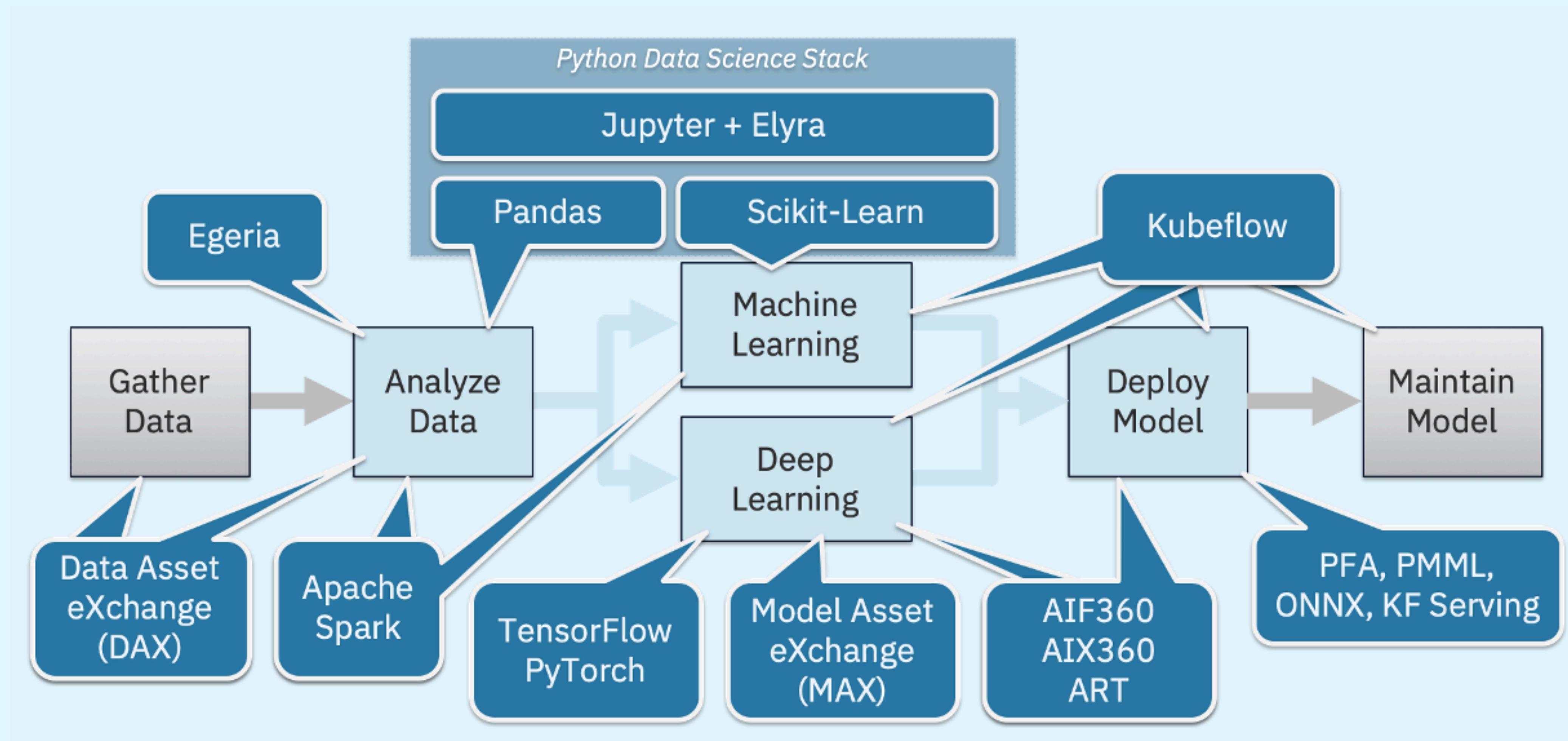
dataquest.io/scholarship

AI INCLUSIVE & FOURTHBRAIN
SCHOLARSHIP

AI Inclusive & FourthBrain

We build tools to make AI accessible and available to everybody

(codait.org)



We contribute to and advocate for the **open-source** technologies



How did you get where you are?





Population: ~200 million

Official Language: Portuguese



Population: ~6 million

Program Director @ IBM

Sr. Machine Learning Manager @ IBM

Sr. Developer Advocate @ IBM

Lead Data Scientist @ Deserve

Data Scientist @ Sharethrough

Data Scientist @ Alpine Data Labs

Teaching Assistant @ SFSU

Statistician

R-Ladies

AI Inclusive

BSc

MSc

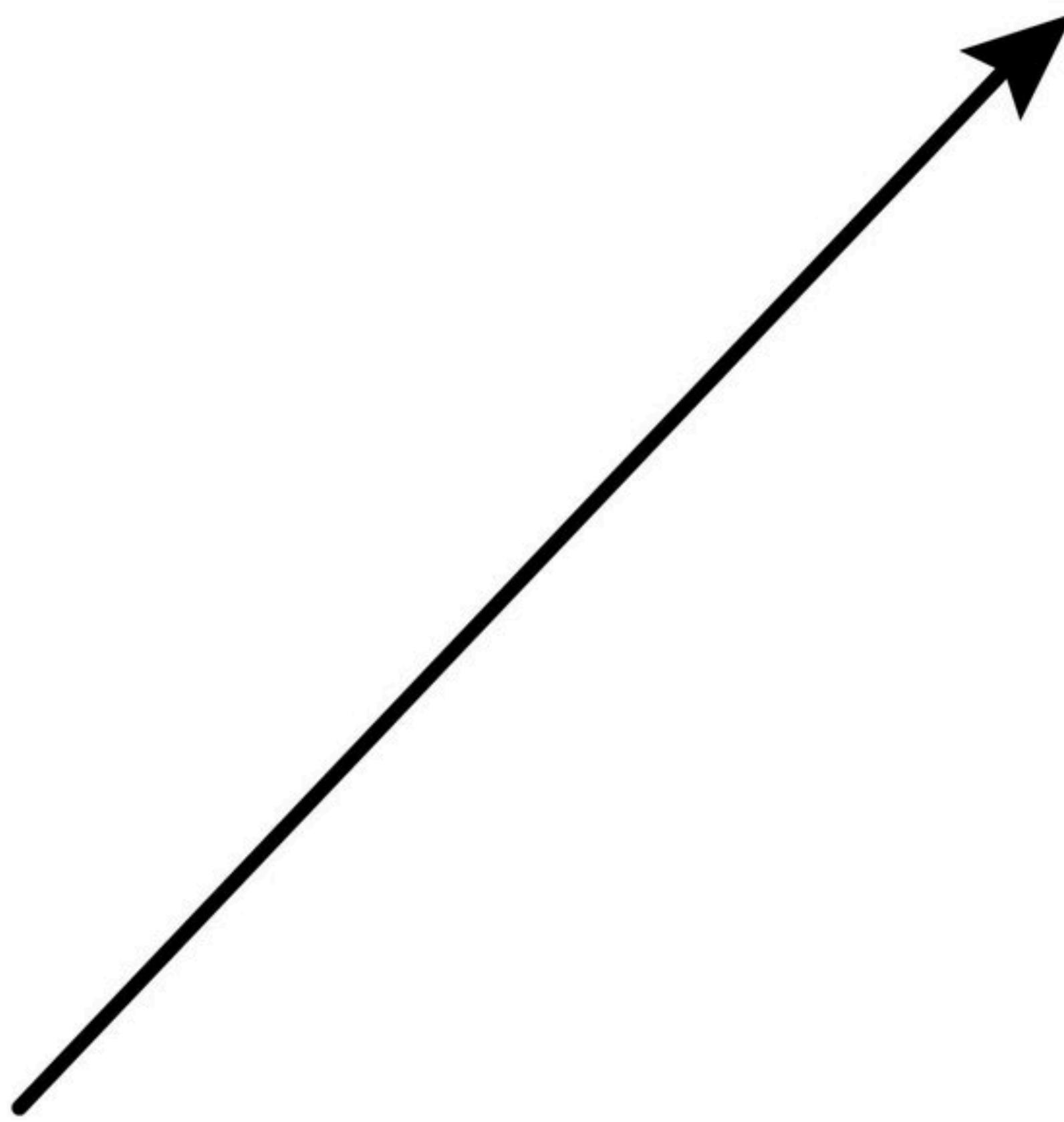
MSc

Statistics

Epidemiology

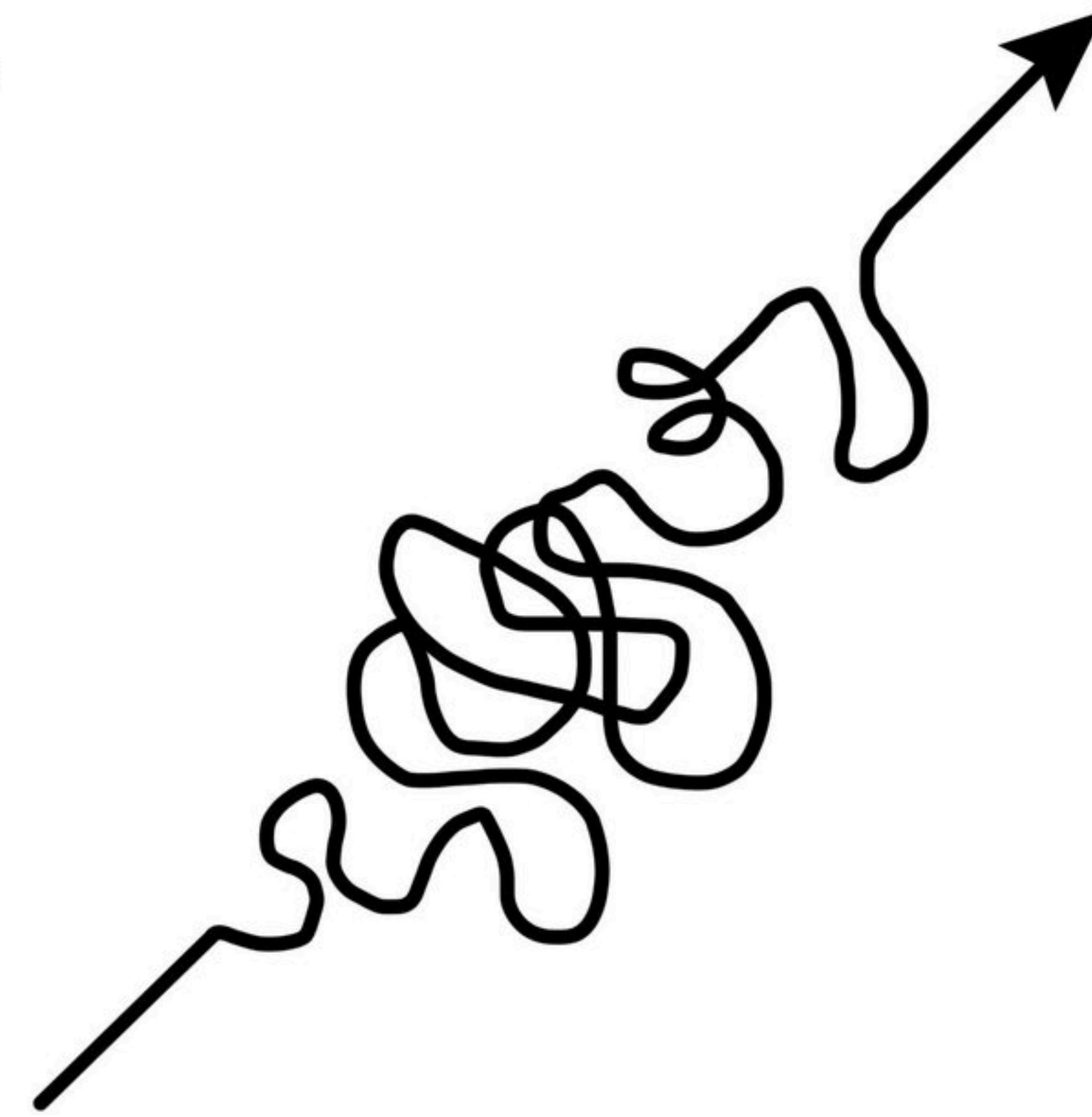
Statistics

SUCCESS

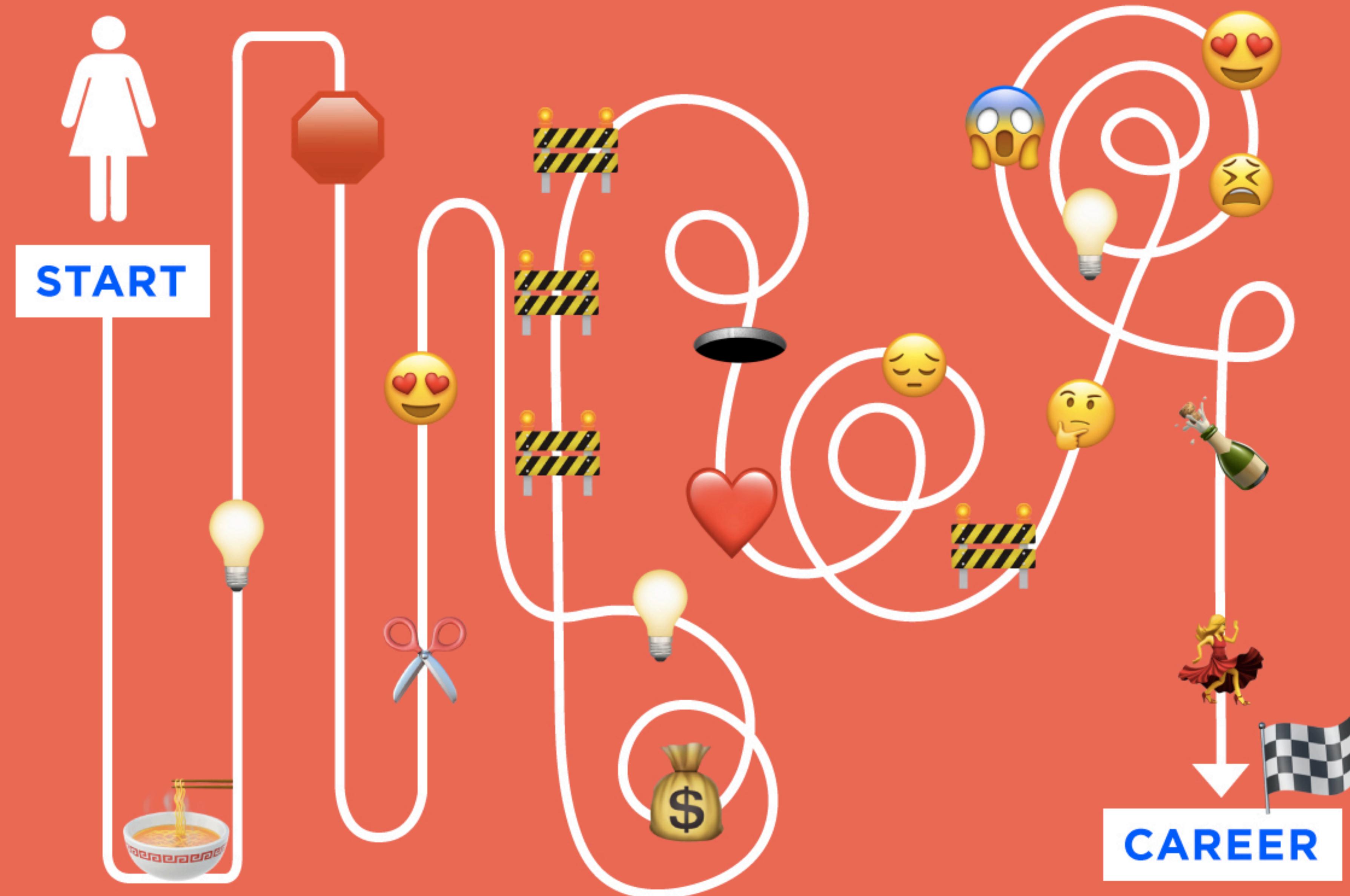


**what people think
it looks like**

SUCCESS

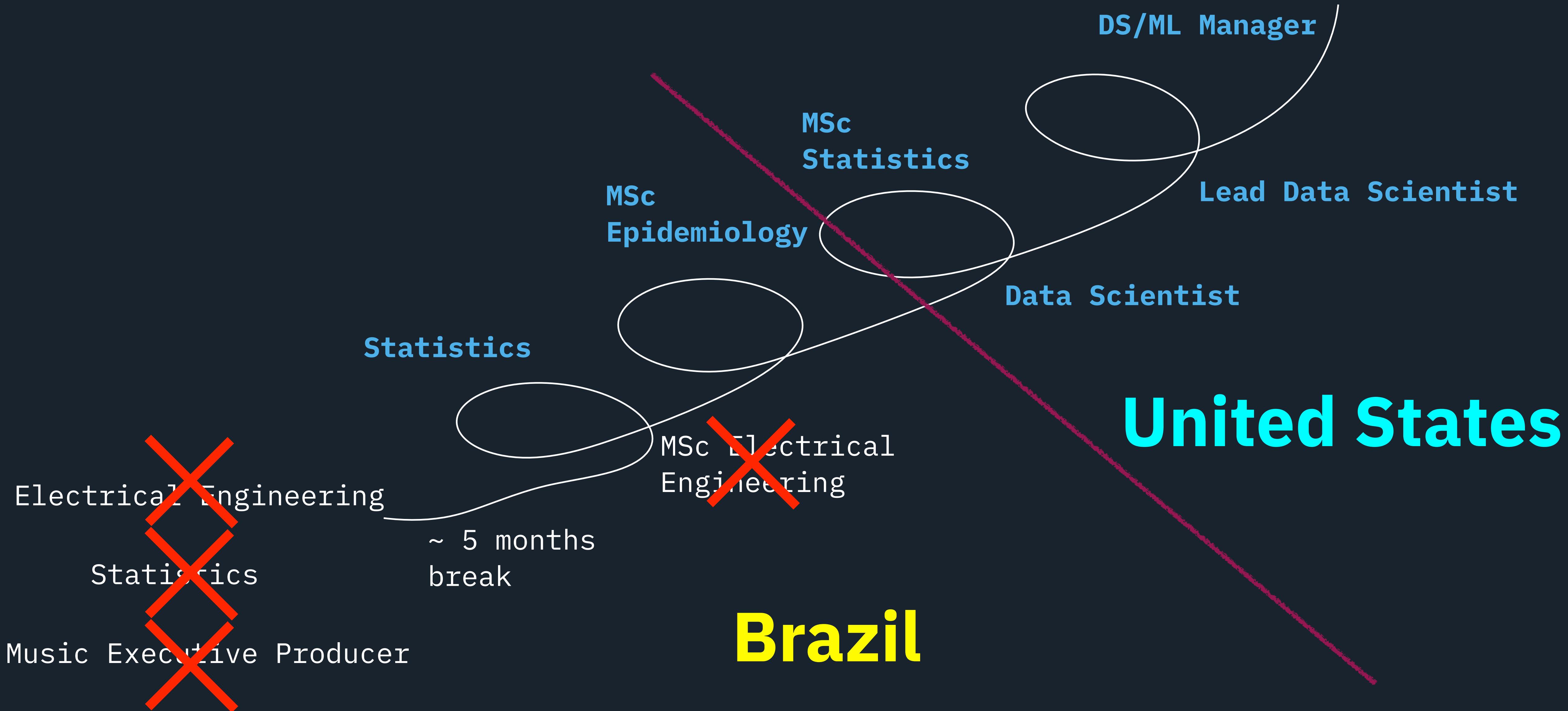


**what it really
looks like**



Academic/Career Path

Program Director

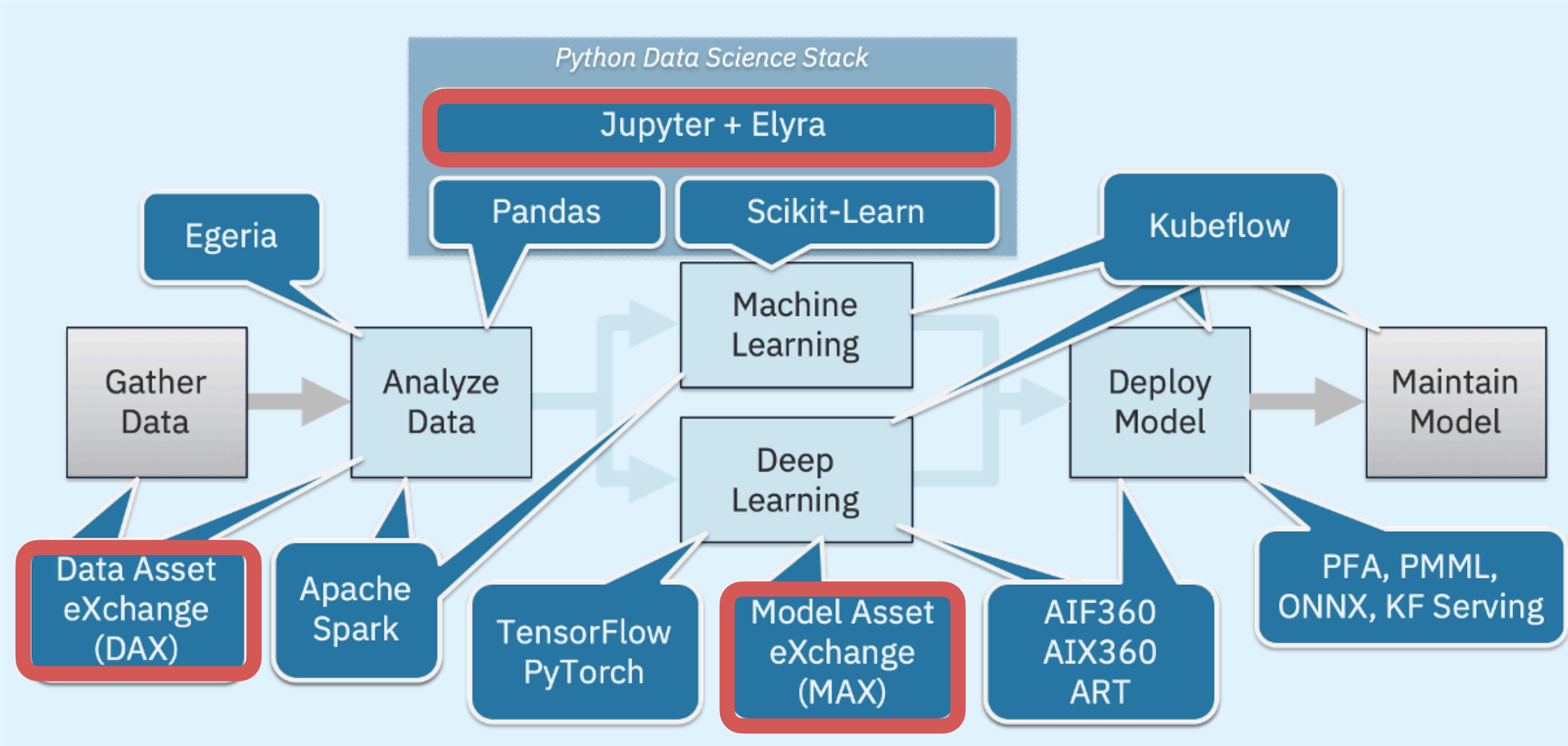


Some Projects



We build tools to make AI accessible and available to everybody

(codait.org)





Elyra

extends JupyterLab for AI

Elyra is a set of AI centric extensions to JupyterLab. It aims to help data scientists, machine learning engineers and AI developer's through the model development life cycle complexities.

ibm.biz/elyra-ai

The screenshot shows the JupyterLab interface with the Elyra extension installed. On the left, there is a file browser showing a directory named 'demo-pipelines' containing several files: contributors.csv, demo.pipeline, generate-contrib..., generate-stats...., kfp-operator.ip..., overview_with_..., overview_with_..., overview_with_..., and overview.ipynb. The main area is the 'Launcher' which is divided into sections:

- demo-pipelines**: Shows a Notebook icon.
- Notebook**: Shows icons for Python on Kubernetes with TF, Python on Kubernetes, Python on Kubernetes with TF, Scala on Kubernetes, Spark - Python (Kubernetes), and Spark - Scala (Kubernetes).
- Console**: Shows icons for Python on Kubernetes with TF, Python on Kubernetes, Python on Kubernetes with TF, Scala on Kubernetes, Spark - Python (Kubernetes), and Spark - Scala (Kubernetes).
- Other**: Shows icons for Terminal, Text File, Markdown File, Pipeline Editor, Python File, and Contextual Help.

Machine Learning Team

Model Asset eXchange

Model Asset eXchange

Free, deployable, and trainable code. A place for developers to find and use free and open source deep learning models.

Try the tutorial →
Join the community →

Featured Deployable Trainable

Model Deployable Toxic Comment Classifier Detect 6 types of toxicity in user comments Jun 04, 2019 →	Model Deployable, Trainable Text Sentiment Classifier Detect the sentiment captured in short pieces of text Mar 29, 2019 →	Model Deployable, Trainable Image Segmenter Identify objects in an image, additionally assigning each pixel of the image to a particular object. Sep 21, 2018 →
Model Deployable, Trainable Object Detector Localize and identify multiple objects in a single image. Sep 21, 2018 →	Model Deployable Audio Classifier Identify sounds in short audio clips. Sep 21, 2018 →	Model Deployable Image Caption Generator Generate captions that describe the contents of images. Sep 21, 2018 →

Data Asset eXchange

Learn More →

Data Asset eXchange

Explore useful and relevant data sets for enterprise data science

What's New →
Get Involved →

Dataset CSV NOAA Weather Data - JFK Airport June 30, 2020 →	Dataset IOB format Groningen Meaning Bank - Modified May 14, 2020 →	Dataset CSV Fashion-MNIST September 12, 2015 →
Dataset JPG, JSON PubLayNet October 25, 2019 →	Dataset WAV TensorFlow Speech Commands March 17, 2020 →	Dataset PNG, JSON PubTabNet July 20, 2020 →

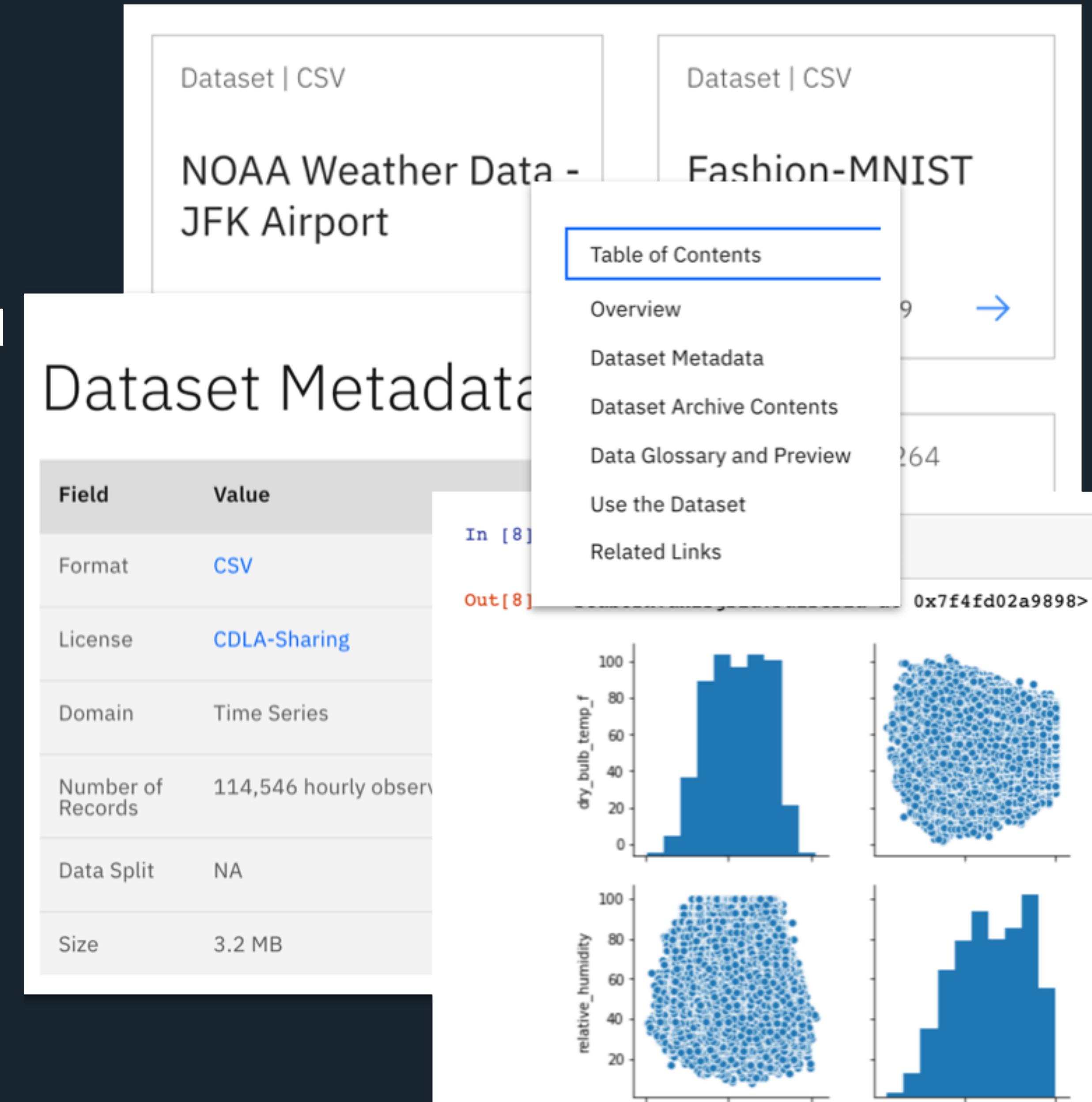
ibm.biz/model-exchange

ibm.biz/data-exchange

Data Asset eXchange (DAX)

- Curated repository for **open** datasets from IBM Research and third-parties
- Published under data friendly licenses
- Standardized dataset formats and metadata
- Many data sets include starter notebooks (cleansing, data exploration, analysis)

ibm.biz/data-exchange



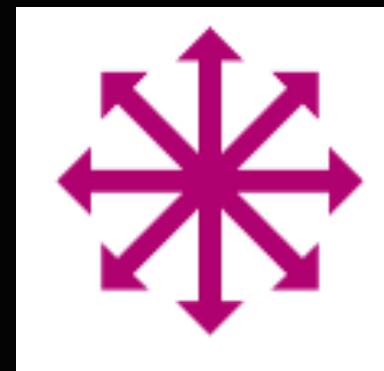
Trusted AI Lifecycle through Open Source

Pillars of trust, woven into the lifecycle of an AI application



IBM and LFAI move forward on
trustworthy and responsible AI
IBM donates Trusted AI toolkits to the Linux Foundation AI

Did anyone tamper
with it?



ROBUSTNESS

Adversarial Robustness 360
↳ (ART)

DEMO: art-demo.mybluemix.net

Is it fair?



FAIRNESS

AI Fairness 360
↳ (AIF360)

DEMO: aif360.mybluemix.net

Is it easy to understand?

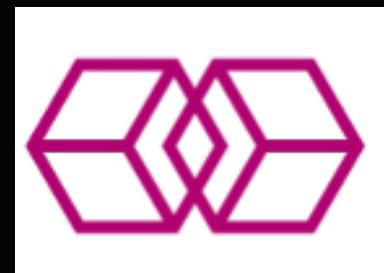


EXPLAINABILITY

AI Explainability 360
↳ (AIX360)

DEMO: aix360.mybluemix.net

Is it accountable?



LINEAGE

AI FactSheets 360

DEMO: aifs360.mybluemix.net

Trusted-AI

This GitHub org hosts LF AI Foundation projects in the category of Trusted and Responsible AI.

IBM @LFAI_Foundation info@lfaifoundation.org

Repositories 4 Packages People Projects

Pinned repositories

adversarial-robustness-toolbox
Adversarial Robustness Toolbox (ART) - Python Library for Machine Learning Security - Evasion, Poisoning, Extraction, Inference
Python 1.7k 480

AIF360
A comprehensive set of fairness metrics for datasets and machine learning models, explanations for these metrics, and algorithms to mitigate bias in datasets and models.
Python 1k 340

AIX360
Interpretability and explainability of data and machine learning models
Python 621 136

AI Fairness 360 (AIF360) R Package
CRAN 0.1.0 CRAN 0.1.0

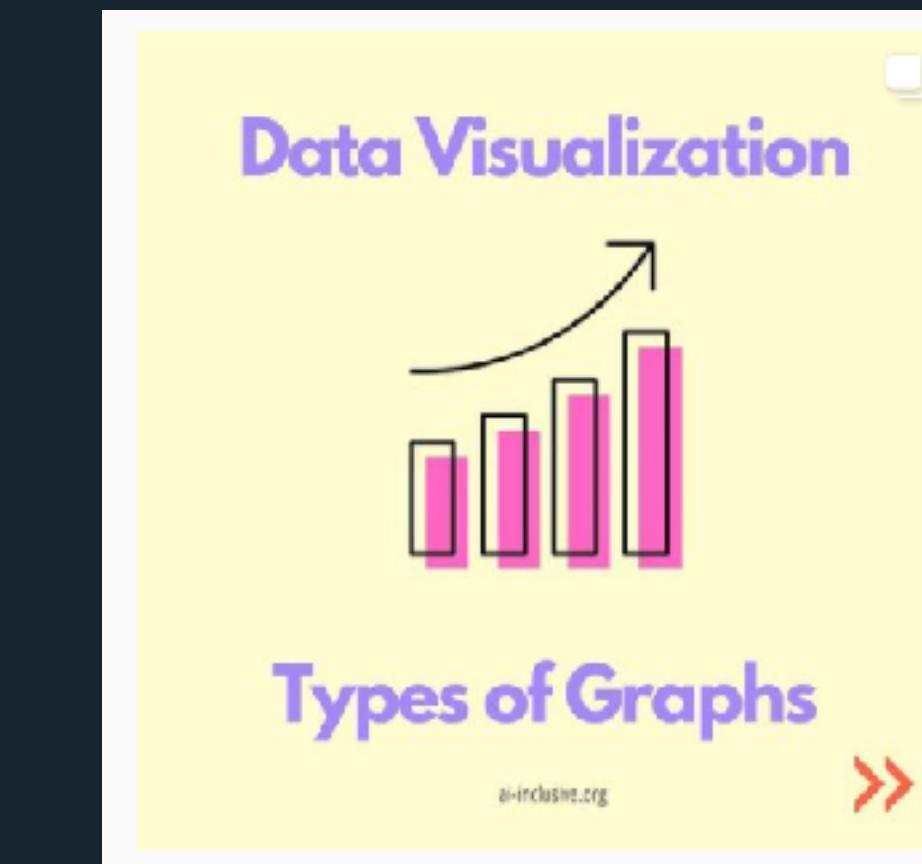
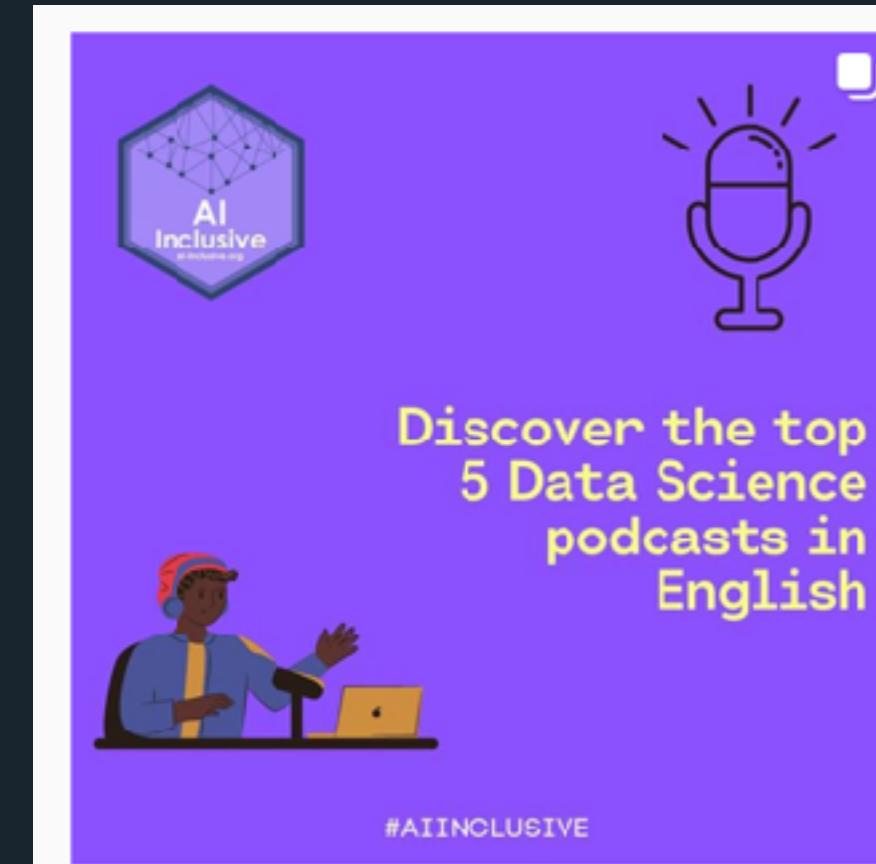
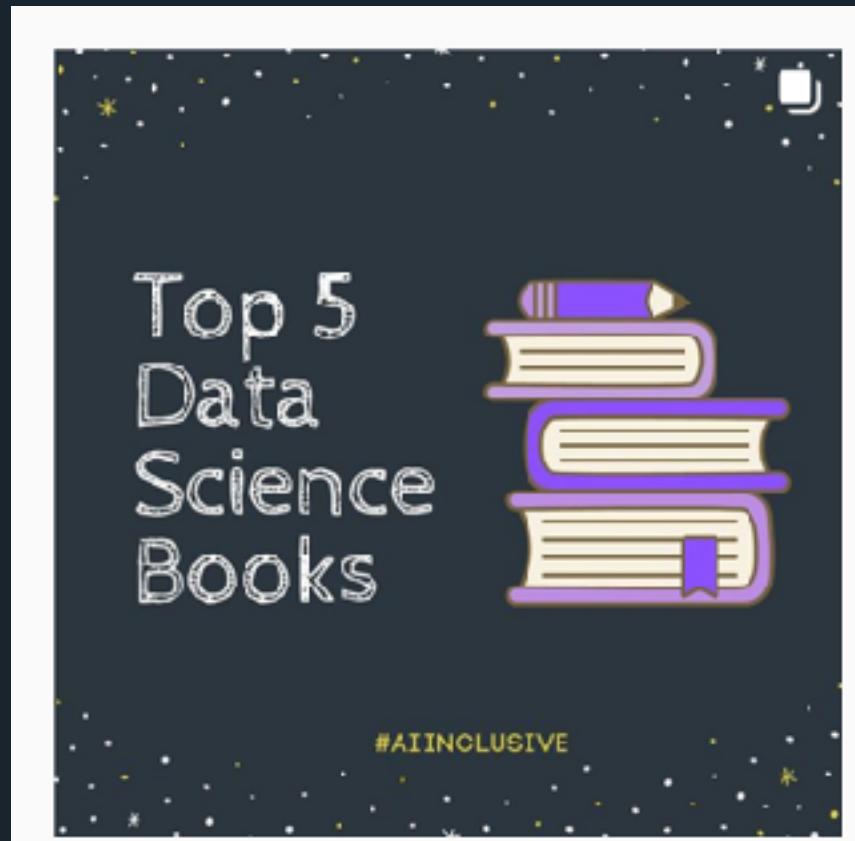
Available in R too!

Thank you!



@gdequeiroz | linktr.ee/gdq

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ai-inclusive.org

Resources on AI, DS, ML , Scholarships, Events, Free Tickets and much more