ESG AI

Brief Introduction slide

S&P500 with ESG

Survey

S&P50's hottest trend is ESG!

1. ESG ETF: iShares®ESG Screened S&P500 ETF

   https://www.spglobal.com/spdji/kr/indices/esg/sp-500-sustainability-screened-index/#overview

   https://www.spglobal.com/spdji/en/education/article/the-sp-b3-brazil-esg-index-a-new-benchmark-for-sustainability-and-investment

2. 90% of S&P 500 Publish ESG/Sustainability Reports (pdf slide)

   https://unctad.org/system/files/non-official-document/ciiisar37_2_RHirth_en.pdf

3. article – 3BL MEDIA

   https://www.3blmedia.com/news/90-sp-500-index-companies-publish-sustainability-reports-2019-ga-announces-its-latest-annual

4. Sustainability report 2021. AAPL example

   https://www.apple.com/environment/pdf/Apple_Environmental_Progress_Report_2021.pdf

5. Amazon & Climate Pledge: net-zero carbon emission task for 2040

   https://sustainability.aboutamazon.com/about/report-builder

Recent paper for ESG investment

- Taylor & Francis – financial analysts journal
  - [Why and how investors use **ESG** information: Evidence from a global survey](#)

- Idunn journal
  - [**ESG** and socially responsible investment: A critical review](#)

ESG advisory service enterprise

▶ ClimeCo

  ▶ https://climeco.com/esg-advisory/?gclid=Cj0KCQjw8_qRBhCXARIsAE2AtRYWGIjc-bda6r_VHJ4vVIBzvcYI8UExdfJpJ28HFA1-wiXxQY72GbIaAsLkEALw_wcB
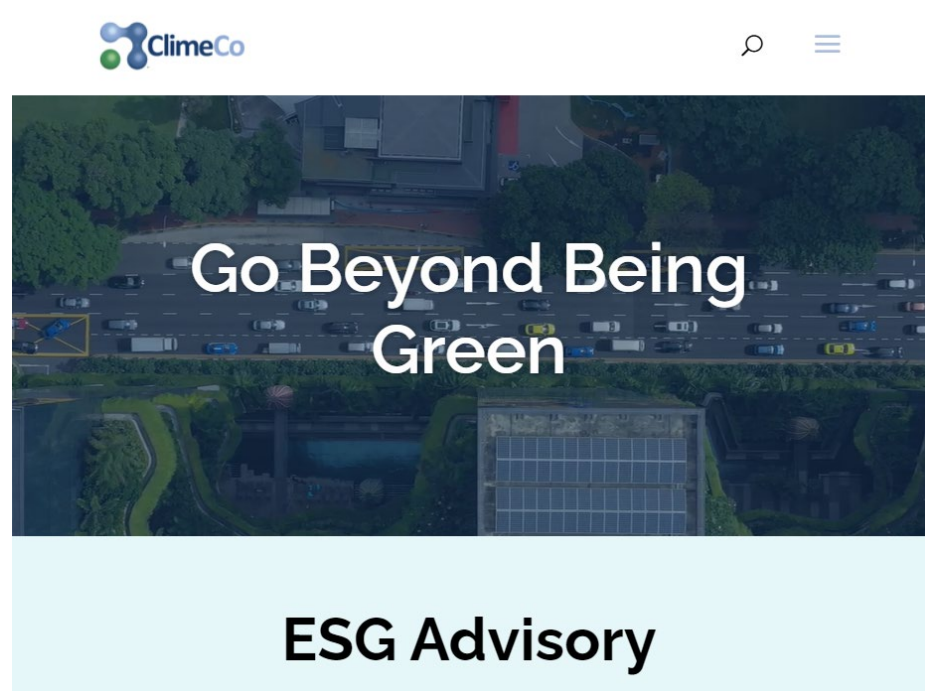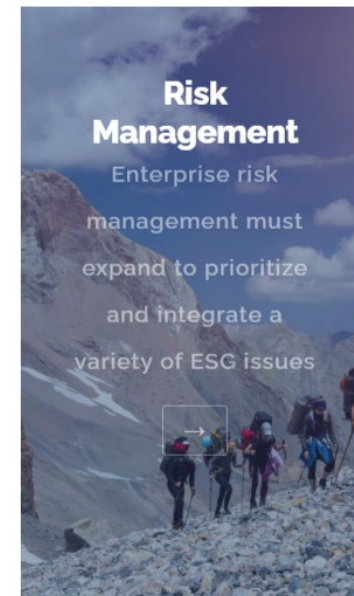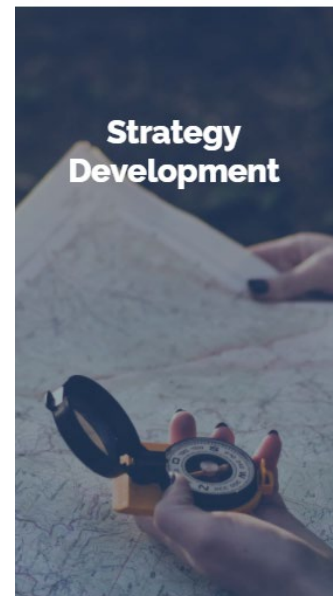
Greenwashing & its examples

▶ https://thesustainableagency.com/blog/greenwashing-examples/

2. Keurig

- **Year:** 2022
- **Who called it out:** The Competition Bureau
- **Type of greenwashing:** misleading recycling claims
- **Where:** Canada

ESG with AI

- Why AI is needed for this service?
- Technical stack explanation

ESG reporting

- https://sphera.com/glossary/what-is-esg-reporting-and-why-is-it-important/

ESG Reporting

- 90% of S&P 500 index companies published annual sustainability reports
- There is not one standard reporting format, but there are general reporting guidelines (e.g. Nasdaq)
- Reports range from 30 pages to 200+ pages
- One report can take 6-7 hours of pure reading time
- Analysts read multiple reports to understand company trends and themes, spending weeks for their ESG thesis in addition to alternative data

Worldwide News

- Investors, individuals, and institutions alike leverage financial news to make investment decisions
- News impacts markets and contains important information to keep investors up to date
- Financial news can come from many sources: publications from the actual company to third party reporting
- News is worldwide as are companies and gives insight into many different categories: from technical details to sustainability to product release information

FINASTRA

Problem

Determining an ESG score for a company is difficult. Currently, research analysts must leverage many different sources of data and spend time scouring news articles to put together an informed ESG scoring thesis. Time is of the essence and with so many comparable companies across many different sectors, the current manual approach, taking weeks to months, is highly inefficient. For individual investors this process is an even lengthier process. ESG scoring should be an automated approach and accessible to everyone.

Solution

ESG^{AI} is a research service and platform that ingests billions of company and industry wide news articles, performs sentiment analysis to understand tone across the categories, and uses deep learning in a graphical format to understand relations between companies and their news.

Using a data driven approach, we are able to automate and continuously monitor and score ESG performance for thousands of companies in real-time, saving investors thousands of hours of research time.

GDELT?

750,000,000,000+ data points

Visualization credit GDELT Project.

Watching The Entire World

GDELT monitors the world's news media from nearly every corner of every country in print, broadcast, and web formats, in over 100 languages, every moment of every day.

Global Reach

GDELT monitors print, broadcast, and web news media in over 100 languages from across every country in the world to keep continually updated on breaking developments anywhere on the planet. Its historical archives stretch back to January 1, 1979 and update every 15 minutes. Through its ability to leverage the world's collective news media, GDELT moves beyond the focus of the Western media towards a far more global perspective on what's happening and how the world is feeling about it.
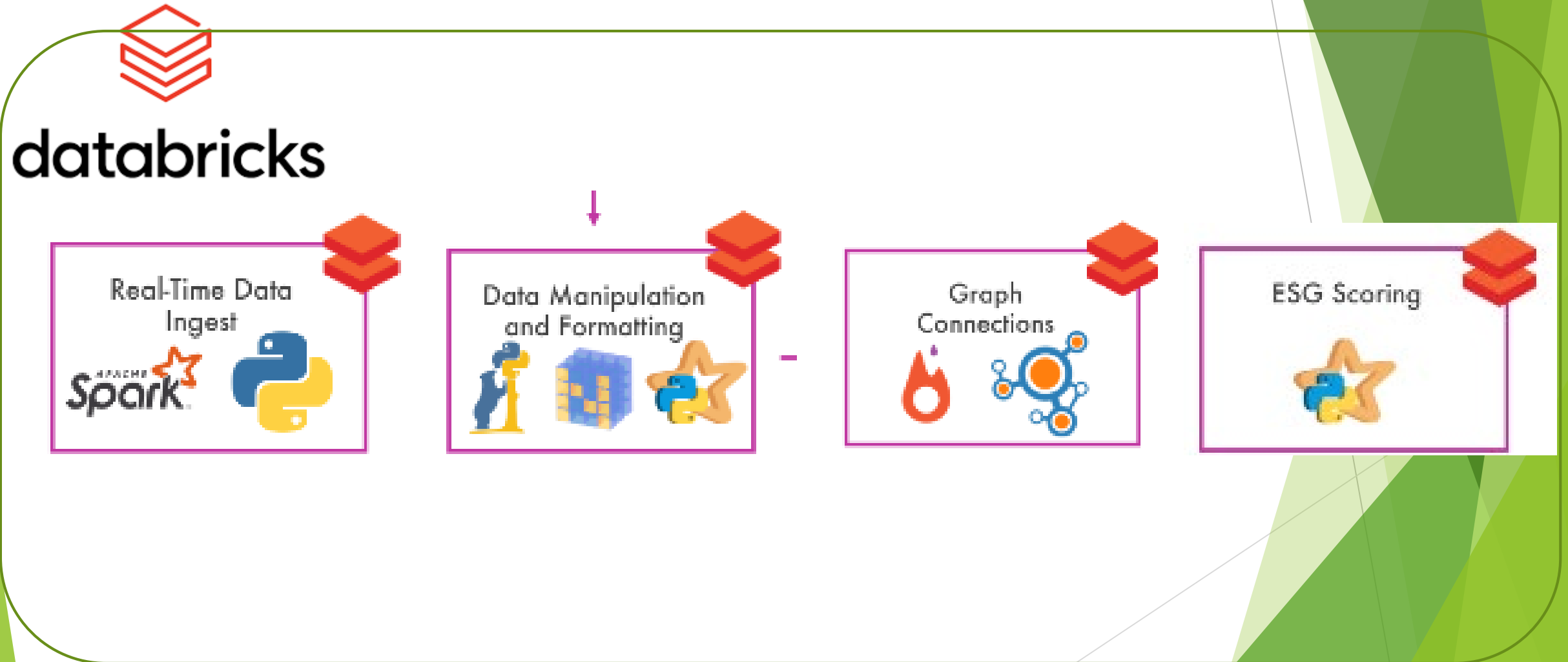
Technical Stack

Data Crawling & Creation

Web Dashboard
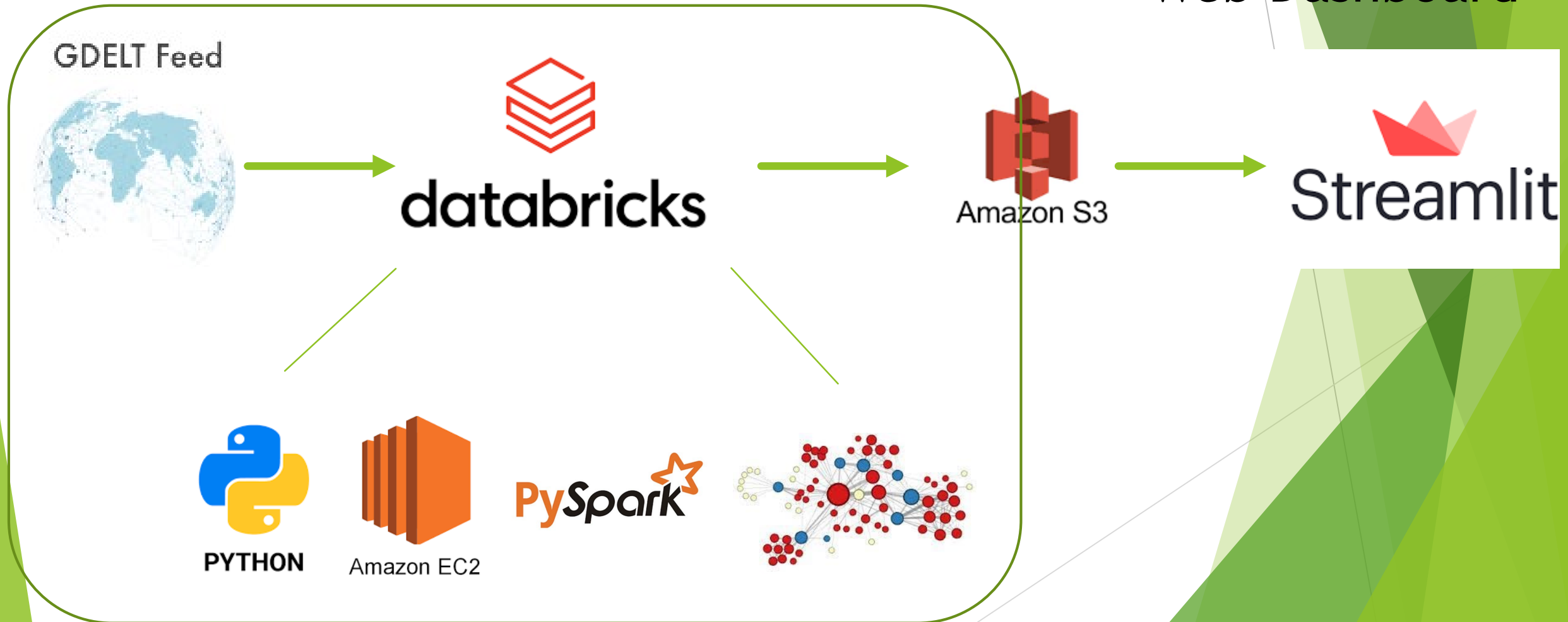
Technical Stack Detail for Databricks (Data Crawling & Creation)

Web demo

https://share.streamlit.io/seong-jihyeon/esg-investment/main.py