

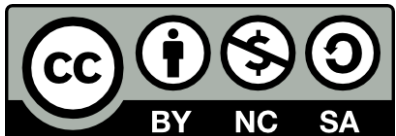
INTI6 – Inteligência Artificial

2023.2

Aula 01 Introdução



Prof. Everton Silva
everton.silva@ifsp.edu.br



Aula de Hoje

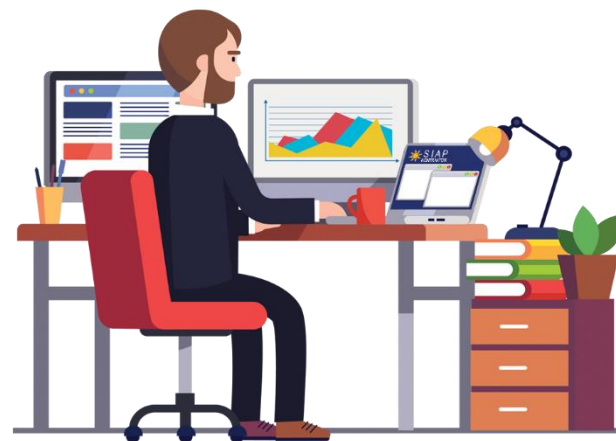
- Pensamento Analítico de Dados (Data-Analytic Thinking)
- Algumas aplicações
- Exemplo: Furacão Frances - 2004

Pensamento Analítico

Algorítmica



Heurística



Construir e testar hipóteses

Pensamento Analítico



Decisões de melhor qualidade



Análise de dados



Argumentos sólidos

Pensamento Analítico de Dados

Identificar e definir problemas, extrair informações dos dados e desenvolver soluções.

Grandes investimentos, nos últimos 15 anos, em infraestrutura de negócios para melhorar a **capacidade de coletar dados**.

Ampla disponibilidade de dados levou a um interesse crescente em métodos para extrair **informações úteis e conhecimento dos dados**.

As empresas em quase todos os setores estão focadas na exploração de dados para obter **vantagem competitiva**.



Pensamento Analítico de Dados

Antigamente equipes de estatísticos e analistas faziam a **exploração manualmente**.

Computadores mais poderosos, a difusão e o desenvolvimento de algoritmos possibilitaram **análises mais amplas e profundas**.

Isso deu origem a aplicação comercial dos princípios de **ciência de dados e técnicas de aprendizado de máquina**.

Melhorar o pensamento analítico de dados, desenvolve intuição sobre **como e onde aplicar a criatividade** e o conhecimento do domínio;



Algumas aplicações



Marketing direcionado
(Target marketing)



Publicidade online
(Online advertising)

Algumas aplicações

Frequentemente comprados juntos



Preço total: R\$2.725,26

Adicionar os três ao carrinho

 Estes itens são enviados e vendidos por vendedores diferentes. [Ver detalhes](#)

- ✓ **Este item:** Câmera Digital EOS Rebel T100 18-55mm f/3.5-5.6 IS III BR, Canon, Preto R\$2.399,00
- ✓ Cartão de Memória SanDisk Micro SD, 64Gb R\$69,00
- ✓ Porta Camera Média preta DCB304, Case Logic, Acessórios para Câmeras Digitais, Preta R\$257,26

Venda cruzada
(Cross-selling)



Análise de Crédito
(Credit Score)

Algumas aplicações



Detecção de Fraude
(Fraud Detection)

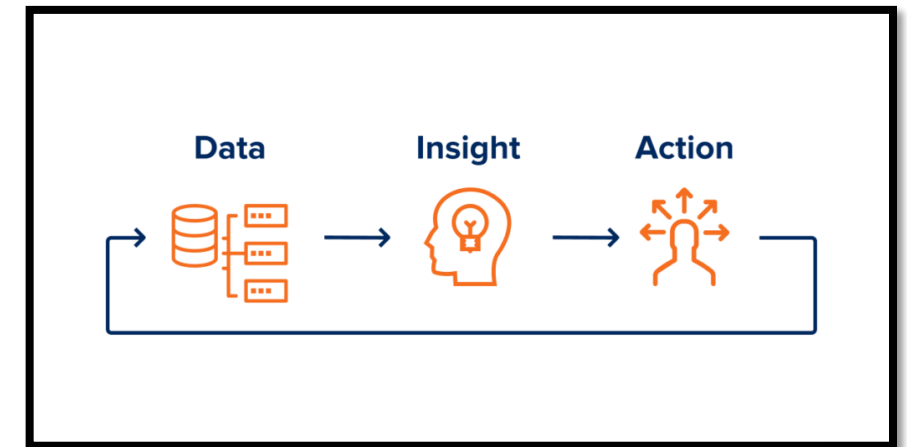
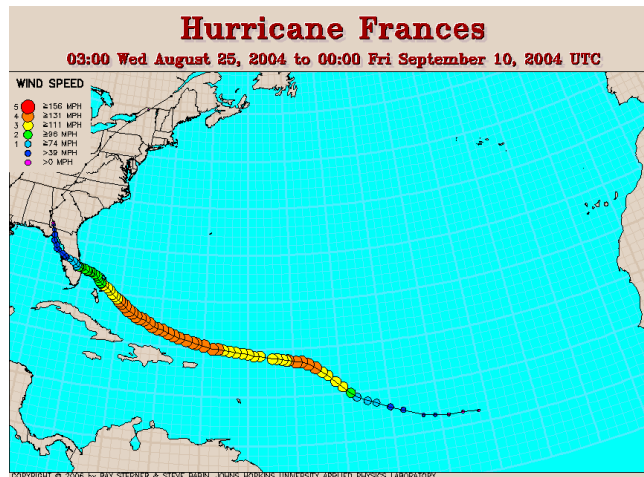


Vendas de Varejistas –
Imagens de Satélites
(Retailers' Sales)

Furacão Frances - 2004

Hurricane Frances was on its way, barreling across the Caribbean, threatening a direct hit on Florida's Atlantic coast. Residents made for higher ground, but far away, in Bentonville, Ark., executives at Wal-Mart Stores decided that the situation offered a great opportunity for one of their newest data-driven weapons ... predictive technology.

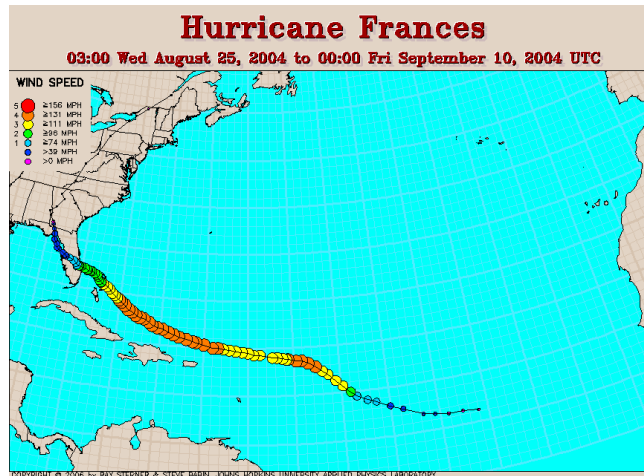
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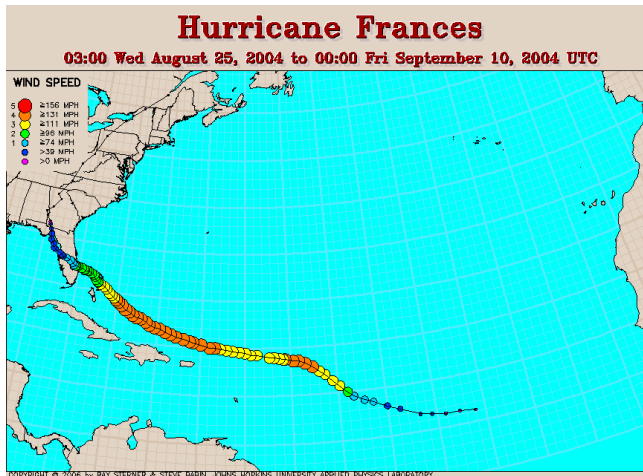
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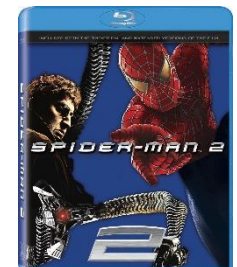
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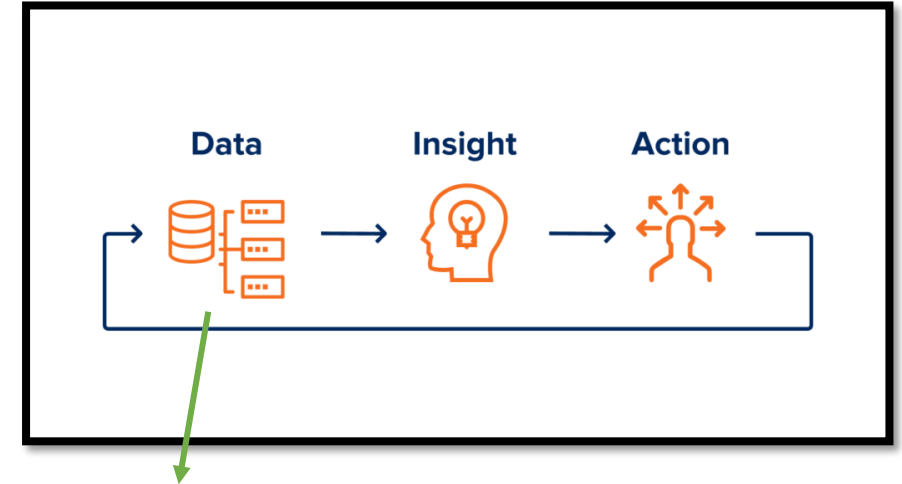
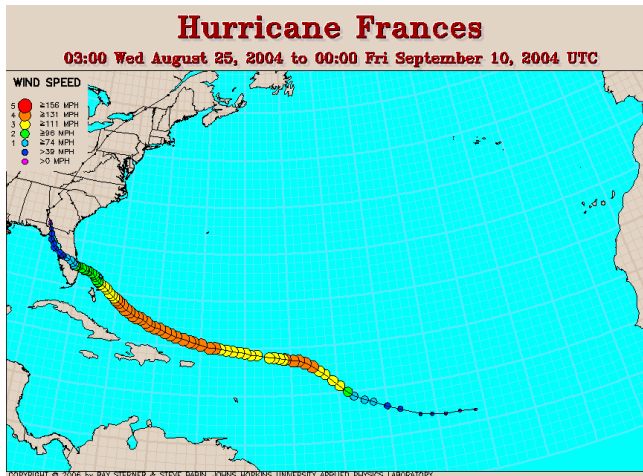
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Furacão Charley - Agosto

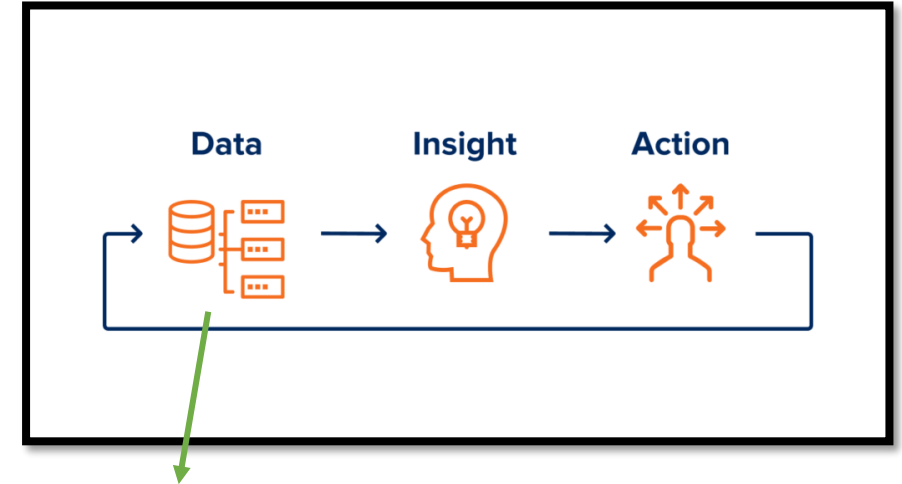
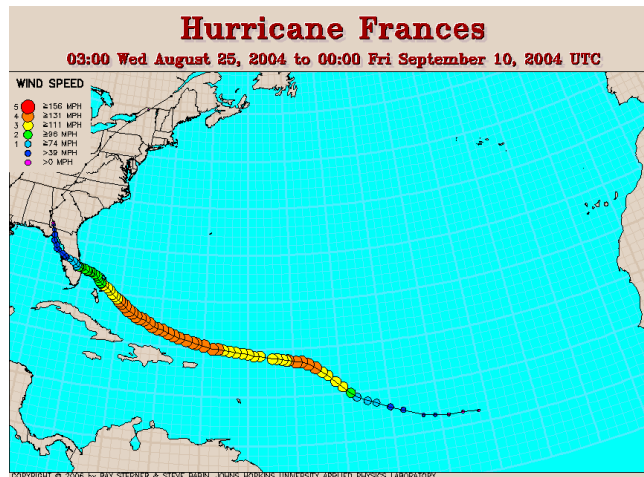


Antecipar a demanda incomum por produtos e enviar estoque para as lojas antes da chegada do furacão.

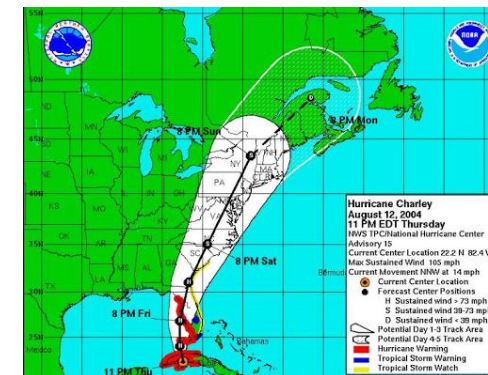
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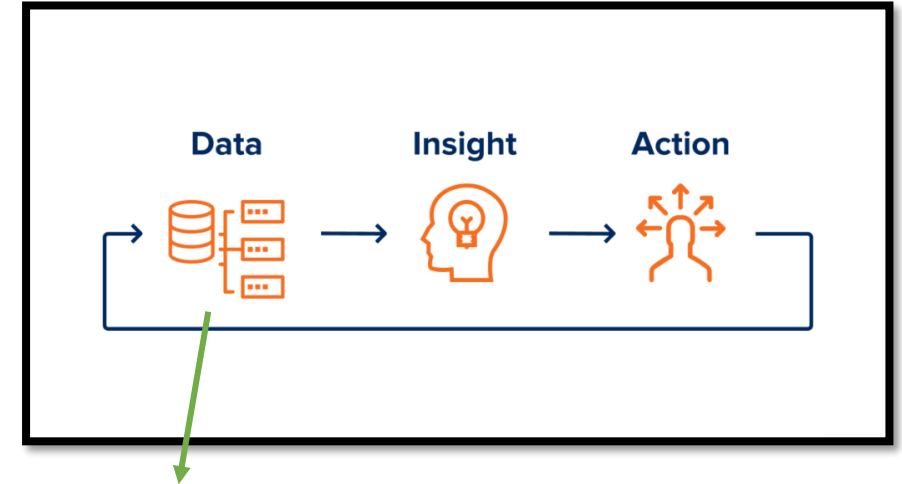
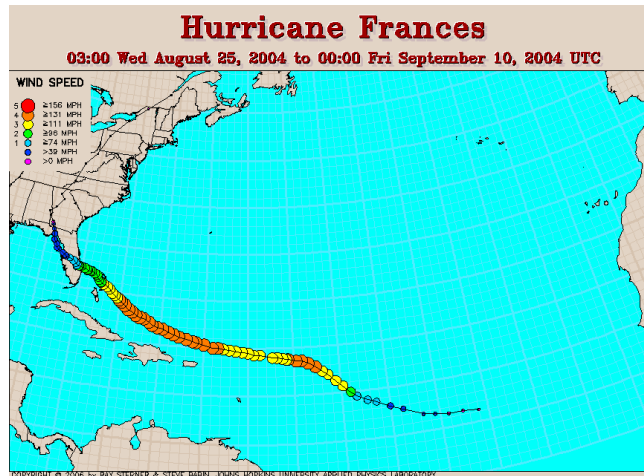


Quais são os produtos mais vendidos antes da chegada de um furacão?

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Furacão Charley - Agosto



Dúvidas?



Créditos

Bibliografia

FAWCETT, T.; PROVOST, F. **Data Science para Negócios: O que você precisa saber sobre mineração de dados e pensamento analítico de dados**. Alta Books Editora, 2018.

GRUS J. **Data science from scratch: first principles with python**. O'Reilly Media, 2019.

Imagens

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