Carlos Andrés Betancur Yepes.

Physicist: Data Scientist | Data Specialist.

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Trained scientist with strong skills in **statistical** and **computational** interpretation of industry problems, backed by my undergraduate degree in **Physics**, where I gained a foundation in analytical methods and programming, especially in **Python**. I have completed courses in **SQL** and **Power BI**, expanding my programming skills with a focus on libraries such as **Pandas, JSON**, **Numpy**, **Matplotlib**, **Seaborn**, **NLTK,** etc. In the field of **Machine Learning**, I have applied **Azure services**, **Scikit-Learn**, and **natural language processing** models using **Transformers**, including the integration of the **Chat GPT** API. I also have experience in **Deep Learning** tools like **Tensorflow** and **Pytorch**, along with web development skills using **Flask**, **Streamlit, HTML**, **CSS**, and **JavaScript** to deploy models in production. I stand out for my ability to learn quickly, collaborate efficiently in teams, and ensure effective deliveries. I am committed to excellence and continuous improvement, seeking opportunities to apply my analytical skills and contribute to the success of the team and organization.

EXPERIENCE

Data Scientist at ManpowerGroup Colombia (December 2023 - Present)

- I spearheaded the implementation and optimization of an Azure AI Search service for intelligent document management. I developed an innovative user interface using **Python**, **HTML**, and **CSS**, significantly enhancing efficiency in information retrieval. This project underscored my ability to tackle complex challenges and deliver effective solutions in **artificial intelligence** and data management, positioning the organization at the forefront of technological innovation.
- I developed a customer experience comment **classification model**, where I implemented a **bagging-type** model using **machine learning** algorithms. Additionally, the **ChatGPT API** was utilized to enhance accuracy in categorizing comments into various categories. This project achieved a significant improvement in the efficiency of the classification process, receiving positive feedback for enhancing the understanding of comments.
- Use of **Python** to consume **APIs** in order to extract information through **Web Scraping** techniques, utilizing the **requests** and **Beautiful Soup** libraries. Implementation of an automated process for data extraction, with manipulation of documents in **JSON** format and unstructured text. The results

are automatically incorporated into a Word file with a carefully formatted layout for easy reading by the user.

Data Analyst at ManpowerGroup Colombia (January 2023 – December 2023)

- I restructured a crucial **Power BI dashboard** for the company, focusing on operational costs and reducing the update time **from over 8 hours to just 3 minutes**. Through efficient data modeling and DAX programming, along with optimization of the ETL in Power Query, I streamlined access to key financial information, significantly enhancing the company's ability to make informed decisions regarding costs and operations.
- Development and Automation of **Power BI** dashboards integrated with tools such as **Python** and **SQL.** I also consumed APIs through Power BI using queries in M language.
- Consumption of APIs with **Python** for information extraction using **Web Scraping** techniques, **request** and **Beautiful Soup** librarys and manipulation of **JSON** format documents.
- Optimizing queries by applying advanced **Power Query** and **M languaje** usage for big data projects.
- Building advanced formulas in **DAX language** and designing interactive reports leveraging the various functionalities in **Power BI** visuals for **descriptive** and **predictive analytics.**

MY INDEPENDENT PROJECTS

About data mining, machine learning, and web scraping:
https://github.com/ndrsbtncr/My_Projects_ML

- In my repository, you can find projects about **natural language processing** such as **sentiment analysis** (NLTK, SpaCy, SciPy, TextBlob), **machine learning models** (Linear Regression, Decision Trees, Random Forest, Logistic Regression, Kmeans, Kprototypes), and **anomaly detection** related to cybersecurity (IsolationForest). I apply **probabilistic techniques** for device **survival analysis** and predict failure events. I've also created a Python and Selenium **Web Scraping** robot with an **executable .exe** for data extraction without using **APIs**.

MATERIALS SCIENCE RESEARCH GROUP, Universidad de Antioquia (June 2021 – December 2022)

- **Development of new theoretical studies** on optical layers of experimentally verified non-linear materials.

- **Implementation of news algorithms** for the solution of differential equations in Wolfram Mathematica languaje.

SKILLS.

- Python, Machine Learning, Deep Learning, C++, HTML, CSS, JavaScript, SQL, Power BI, Microsoft Excel, Mathematical and statistical modeling, Power Pivot, Power Query, M languaje, Data Mining, Postman, Matlab, Wolfram Mathemática, intermediate English, basic German.

EDUCATION

PROFESSION

Universidad de Antioquia

- **Physics** (2014-2022)

  Achievement: I received an honor mention in the ninth semester as the physics student with the highest-grade average.

CERTIFICATIONS

Universidad de Antioquia

- Big Data (April 2022 - November 2022)

MinTic

- Fundamentals of data analytics (November 2022 – January 2023)

Udemy

- Basic, Intermediate, and Advanced Excel. (December 2022 - December2022)
- SQL Server from beginner to advanced. (January 2023 – February 2023)
- Power BI from beginner to advanced. (January 2023 – April 2023)

REFERENCES

Senior Data Scientist Michal Hemmerling

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