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**](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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