# **Juan Carlos Garzon**



#### Summary

Computer Engineer with 5 years of experience in Data Analysis within the Colombian Aerospace Force and 2 years in Artificial Intelligence. Specializing in Computer Vision, Real-Time Object Detection, and NLP using Transformers and LLMs. Experienced in developing and deploying machine learning models with TensorFlow, Hugging Face, and PyTorch. Skilled in building scalable APIs with FastAPI and working with tools like Ultralytics YOLO. Experienced in incorporating LLMs to create specialized AI Agents tailored to company-specific information for question answering. Proficient in Python, SQL, and development environments like JupyterLab, Google Colab, and VS Code. Also experienced in Generative AI for images using models such as GANs and VAEs.

### **Professional experience**

#### Machine Learning Engineer

2024 - Present

Techcolca Inc.

Quebec, Canada

- Developed real-time object detection models with Ultralytics YOLO for accurate detection and classification.
- Built scalable backends with FastAPI for seamless API integration in sports analytics.
- Processed and fine-tuned datasets to optimize detection models for sports applications.
- Analyzed sports data to extract insights, enhance performance metrics, and support decision-making.

#### **Colombian Aerospace Force Officer**

2014 - 2023

Colombian Aerospace Force

Bogota, Colombia

- Managed data in Excel, ensuring accuracy and effective data visualization.
- Designed dashboards to analyze data and optimize decision-making.
- Developed task plans and assigned responsibilities to enhance team workflow.

#### Education

Attestations of Collegial Studies (ACS) - Artificial Intelligence and Machine Learning

2023 - Present

LaSalle College, Montreal, QC

Master's Degree in Big Data and Business Analytics (Online)

2023 - Present

IMF Smart Education, Madrid, Spain

# **Bachelor's Degree in Computer Engineering**

2010 - 2014

"Marco Fidel Suárez" Military Aviation School, Colombia

Certifications: DeepLearning.AI TensorFlow Developer Professional Certificate (November 2024), Azure Data Fundamentals (May 2024), and IBM Data Science Professional Certificate (April 2023).

## **Skills & Knowledge**

#### **Technical Skills:**

- Programming & Frameworks: Python, SQL, TensorFlow, PyTorch, Hugging Face, Scikit-learn, FastAPI, Streamlit.
- Big Data & Databases: MongoDB, SQL Server, SQLite, PostgreSQL.
- **Computer Vision:** Ultralytics YOLO, OpenCV, Hugging Face Vision Models.
- NLP & LLMs: Hugging Face Text and Multimodal Models, development of Al Agents using LLMs.
- **Generative AI**: Experience with image generation using GANs and VAEs.
- Development Tools: JupyterLab, Google Colab, VS Code (Windows/Linux), LangChain, LlamaIndex.

Soft Skills: Creative problem-solving, decision-making, adaptability and resilience, goal-oriented, effective communication, leadership, teamwork, and collaboration.

Languages: Professional proficiency: English Intermediate: French Native: Spanish