

TOM ARC

DATA SCIENTIST / ML ENGINEER

SUMMARY

- **Data Scientist** and **Machine Learning Engineer** with experience designing and deploying **AI-driven solutions** for industry-leading projects. Proficient in leading cross-functional teams, optimizing ML models, and **delivering** end-to-end services in cloud environments. Adept at translating business challenges into practical modern solutions using cutting-edge technologies and **innovative** approaches.

EXPERIENCE

Machine Learning Engineer | NDS Cognitive Labs | Jan 2024 – Present

- Managing a **6-member** team developing machine learning **M-SaaS** solutions such as **Trend Spotting**, **Generative AI** and **Interactive Dashboards** for various clients.
- Developing a 24/7 virtual agent **chatbot** that guides users from selecting a life insurance policy to payment and delivery, integrating **APIs** and a budgeting calculator for transactions.
- Led a 4-member data science team for 9 months to successfully retrain chatbot assistants for enhanced accuracy using **Apache Beam** and **VertexAI**. This solution streamlined client operations, saved time, and automated **30%** of developers tasks, reducing workload and improving efficiency.
- Applied advanced machine learning techniques to create suggestions of entities and intents for **IBM Watson X**, enhancing chatbot performance and user experience.

Fullstack Developer | NDS Cognitive Labs | Aug 2023 – Dec 2023

- Developed a responsive web application with **FastAPI** and **React** to streamline response editing for multiple chatbots powered by **IBM Watson X**.
- Implemented enhancements based on user feedback, significantly improving user engagement and overall **customer satisfaction** metrics by **25%**.

Business Analyst | Linamar Corporation - Internship | Jan 2019 – Mar 2019

- Built multiple real-time data dashboard using SQL Server database, integrating with **Microsoft Power BI**, enabling data-driven decision-making in **real time**.
- Collaborated with cross-functional teams to ensure **data accuracy** and timely updates of dashboard interfaces, ensuring alignment with **business objectives**.

PROJECTS

Curriculum Vitae Categorization

- Developed an **OCR** scanner and custom Large Language Model (**LLM**) to automate job post classification for **Grupo PiSA**, integrating data preprocessing, feature extraction, and model evaluation into a comprehensive **ML** pipeline using **TensorFlow** and **SpaCy**. Achieved a **50%** reduction in processing time against manual classification.

Deep Convolutional Neural Networks for image classification (DCNN)

- Classification of satellite images based on RGB values and topographical data using **DCNN** and **ReLU** function, with an accuracy result of **79%** after 50 epochs of training.

ByteBoost Algorithmic Trading Assistant

- Utilized complex algorithms to analyze historical data, identify **market patterns**, and suggest optimal **entries and exits**. ByteBoost simplifies trading decisions for users by using liquidation triggers based on **leverage** and **risk tolerance** producing an approximate **40% monthly** portfolio growth.

Transport Optimization in Logistics


- Implemented Guided Local Search (**GLS**) over a three-month period to solve the **CVRP** for **Coppel's** e-commerce deliveries, reducing the number of trucks required from 11 to 9 (an 18% improvement) and total distance traveled from 720.6 km to 422.7 km per day (a 41% reduction), while significantly **maximizing delivery efficiency**.


Additional Projects

- Access my extended list of projects and portfolio content [here](#).


CONTACT

 arctomb@gmail.com

 +52 (625) 589 8930

 [linkedin.com/in/tom-arc/](https://www.linkedin.com/in/tom-arc/)

 Guadalajara, México

 French National

EDUCATION

TECNOLÓGICO DE MONTERREY

- Bachelor of Engineering in Data Science and Mathematics
Aug 2020 – June 2024

CERTIFICATIONS

- MongoDB Developer
- GCP Introduction
- Kubernetes & Docker Introduction

SKILLS

Programming Languages

- Python
- C++
- R
- C#

Machine Learning / AI

- Scikit-Learn
- SciPy
- NLP
- Pandas
- TensorFlow
- Neural Seek

Databases

- MongoDB
- Firebase
- SQL Server
- MySQL

Data Visualization

- Power BI
- Minitab
- Tableau
- Excel

Tools

- Git
- VirtualBox

Cloud

- AWS
- GCP

Methodologies

- Agile
- CRISP-DM

Interpersonal

- Leadership
- Effective communication
- Project management

AWARDS

TECNOLOGICO NACIONAL DE MEXICO

- 2nd place in Informatics Regional Programming Contest (C++)

LANGUAGES

- English | C1
- Spanish | C2
- French | Native