# Wilmer A. Gonzalez S. %

Machine learning engineer Caracas, Venezuela.

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#### EXPERIENCE

• Brightflow.Al

(remote) Caracas, VE May 2023 - Present

Machine learning engineer

- o Enable usage of industry data and models to enhance financial metrics for business owners.
- o Stablish MLOps practices and components across forecasting models.
- o Develop a full-stack LLM component using financial data to generate insights.

Technologies: AWS, Python, Typescript, React, MLflow, LLMs, OpenAl ChatGPT, Athena.

## • CircleUp (Acquired by Brightflow.AI)

(remote) Caracas, VE August 2021 - May 2023

Machine learning engineer

- o Enable ML monitoring practices across 5 use-cases in the CPG industry.
- Enable semantic comparison of 1.7M brands and a hundred thousand text attributes.
- o Improve and maintain classification pipelines of millions of observations with tens of GB-scale text data.

Technologies: AWS, GCP, Python, PySpark, Airflow, Vertex, BigQuery, Dataproc, Tensorflow, BERT.

Sigma

(remote) Caracas, VE

Senior Machine learning engineer

- June September, 2023
- Develop misleading claims detection in advertising by using Google's LLM and prompt engineering.
- o Integrate third-party ML services for feature detection and moderation on advertising creatives (image and text-based).
- o Develop instruments for validation and comparison of third-party ML services.

<u>Technologies:</u> Large Language Models (LLM), Prompt Engineering, Vertex AI, Google Cloud Platform (GCP), Python, Natural Language Processing (NLP).

UNDP (UN)

Caracas, VE

Machine learning engineer

August 2019 - August 2021

- Provide summaries from opinions and trends by processing 1.1M tweets with Topic Modeling and transformer based models.
- Detect key actors and information hubs by processing 150k user's data with Network analysis.
- Sped up the analytical workflow by 75% by redesigning the sampling strategy for jobs.

<u>Technologies:</u> Azure, Python, R, Bash, Gephi, Power BI, REST API, Vue, Airflow, Kubernetes, Tensorflow, BERT, NLP, Data engineering, Data visualization, Workflow orchestration, Social networks analytics.

Quash

Machine learning engineer

(remote) Caracas, VE March - July, 2021

- o Technical guide of the Data Science team.
- o Improve the adaptability of the scoring API by creating 10+ features engineering stages.
- Deploy personalized ML models for credit scoring, processing 10k+ applications across 5+ countries.

Technologies: Python, R, AWS, Sagemaker, REST APIs.

#### • Universidad Central de Venezuela

Caracas, VE

Adjunct professor (Advanced topics in AI)

October 2018 - Present (seasonal)

- o Designed and organized course material and resources for topics described in here.
- o Lectured material for students and grade their assignments.
- Tutored thesis work on AI related to computer vision (Awarded with country-wise recognition for thesis work between 6 final candidates).

Teaching assistant (Introduction to Data Science, Data Mining)

April 2015 - February 2018

- o Designed and organized practical course material and resources for topics described in here.
- o Lectured practical material for students and grade their assignments.

Technologies: Python, Latex, R, Weka, Colab, Jupyter and swirl.

Omdena
 Lead machine learning engineer

(remote) Caracas, VE

Jan - Apr, 2021

- Helped create a trust score for news articles by implementing a claim detection model.
- o Improved usability of the product by creating a chrome extension connected to resultant models.
- o Contributed to open-source projects related to NLP and Deep Learning models.

Technologies: Python, Keras, Tensorflow, Falcon, REST APIs, Javascript.

Oliver Wyman

(remote) Caracas, VE July - November, 2020

Data engineer

Enabled data pipelines processing by provisioning and configuring Airflow.

- Created DAGs for 30+ stored procedures from SQL Server scripts.
- Created DAGs for importing tabular data (1M+ records) to SQL Server.

Technologies: Python, Airflow, SQL Server, Jenkins, Rancher, Docker, Kubernetes.

Quash

(remote) Caracas, VE

Lead Machine learning engineer

February 2019 - March 2020

- o Developed a customer-facing API for using our internal credit scoring model.
- o Increased approval rate by 15% of customers while keeping the same risk by optimizing state-of-the-art ML models.

Technologies: Python, R, S3 and Docker.

Advoqt

Machine learning engineer

(remote) Caracas, VE February - August, 2019

o Increased security by implementing a Deep Learning model for classifying malicious urls with high accuracy.

Technologies: Python, Tensorflow, Elasticsearch and Spark.

• Fetcher Caracas, VE

Data scientist

June 2018 - February 2019

- $\circ$  Decreased overload of sourcing teams by 10% by creating an automated allocation algorithm using Linear programming and Constraint Satisfaction techniques.
- o Estimated demand of required candidates for sourcing using daily output data.

Technologies: R, Shiny, Latex, SQL and Metabase.

• Predictvia Caracas, VE

Machine learning engineer

February 2016 - January 2017

- o Performed social network analysis, exploratory data analysis, supervised and unsupervised learning.
- o Built and implemented classification models, perform feature engineering, and calibrated existing models.

Technologies: Python, bash.

### TECHNICAL SKILLS

- Programming languages: Python, R, Bash, Julia.
- Cloud services: AWS (Lambda, S3, Sagemaker), GCP (Al Platform), Azure (Blob storage).
- Deep learning frameworks: Keras, Tensorflow.
- Others: xgboost, scikit, pandas, falcon, flask, fastapi, Docker, Kubernetes, Jenkins, Terraform
- Currently learning: Transformers models, Vue, Nodejs.

### EDUCATION

#### • Universidad Central de Venezuela

Caracas, Venezuela

Issued March 2016

Sept. 2012 - Jun. 2018

B.Sc in Computer Science

- Took elective courses on: Introduction to data science, Advanced topics in data science, Artificial Intelligence, Data mining, Text mining, NoSQL databases, Digital image processing.
- o (Thesis title) AdaBnn: Binarized Neural Networks trained with adaptive structural learning.

## CERTIFICATIONS (WITH LINKS)

MOOC @ Udacity/Coursera Machine Learning Engineering for Production (MLOps) Specialization Issued July 2022 Machine learning engineer nanodegree Issued March 2021 Deep learning specialization Issued January 2021 Sequence models Issued January 2021 Convolutional neural networks Issued September 2020 Structuring machine learning projects Issued May 2020 Improving deep neural networks: Hyperparameter tuning, regularization and optimization Issued May 2020 Neural networks and deep learning Issued May 2020 Issued September 2016 R Programming Text mining and analytics Issued August 2016 Text retrieval and search engines Issued June 2016 The data scientist's toolbox Issued June 2016

### Personal Projects (with links)

Data visualization

- Philia: A Slack bot for empathy assessment in co-workers communications.
- AdaBnn: Binarized Neural Networks trained with adaptive structural learning.
- WarmChat: Chat room web app that classifies insults messages by using several classifiers.
- Small tool for generating frequent words analysis on the position names of LinkedIn Connections.
- Template for dockerized shiny (R) application deployment.
- Latex template for CVs with dark theme, with CV guidelines from google.

### Personal publications (with links)

- Mahfuzur Rahman, Ann Chia, Wilmer Gonzalez. Fighting Misinformation and Fake News using NLP . 09/2021
- Sajidxa Mariño, Jesus Lares, Wilmer Gonzalez. Diode's Laser in Office Endoscopic Surgery Center for Nasal Obstruction and Snoring. J Med Clin Res & Rev. 2018; 2(6): 1-3.
- Twitter, A data source for the academy (spanish).
- GitHub & Social Coding. Social network for programmers (spanish).
- Reproducible Research. Case of study: allocation of university places in UCV by OPSU (spanish).