


# Wilmer A. Gonzalez S.

Machine learning engineer

Caracas, Venezuela.

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## EXPERIENCE

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### • Brightflow.AI

(remote) Caracas, VE

*Machine learning engineer*

*May 2023 - Present*

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

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

### • CircleUp (Acquired by Brightflow.AI)

(remote) Caracas, VE

*Machine learning engineer*

*August 2021 - May 2023*

- 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.
- 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.
- Integrate third-party ML services for feature detection and moderation on advertising creatives (image and text-based).
- Develop instruments for validation and comparison of third-party ML services.

Technologies: 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.

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

- **Quash**

(remote) Caracas, VE

*Machine learning engineer*

*March - July, 2021*

- Technical guide of the Data Science team.
- 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)*

- Designed and organized course material and resources for topics described in *here*.
- 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*

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

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

- **Omdena**

(remote) Caracas, VE

*Lead machine learning engineer*

*Jan - Apr, 2021*

- Helped create a trust score for news articles by implementing a claim detection model.
- Improved usability of the product by creating a chrome extension connected to resultant models.
- 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

*Data engineer*

*July - November, 2020*

- 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*

- Developed a customer-facing API for using our internal credit scoring model.
- 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*

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

Technologies: Python, Tensorflow, Elasticsearch and Spark.

- **Fetcher**

*Data scientist*

Caracas, VE

*June 2018 - February 2019*

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

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

- **Predictvia**

*Machine learning engineer*

Caracas, VE

*February 2016 - January 2017*

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

Technologies: Python, bash.

## TECHNICAL SKILLS

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- **Programming languages:** Python, R, Bash, Julia.
- **Cloud services:** AWS (Lambda, S3, Sagemaker), GCP (AI 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

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- **Universidad Central de Venezuela** Caracas, Venezuela  
*B.Sc in Computer Science* Sept. 2012 – Jun. 2018
  - Took elective courses on: Introduction to data science, Advanced topics in data science, Artificial Intelligence, Data mining, Text mining, NoSQL databases, Digital image processing.
  - (Thesis title) AdaBnn: Binarized Neural Networks trained with adaptive structural learning.

## CERTIFICATIONS ([WITH LINKS](#))

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

## PERSONAL PROJECTS ([WITH LINKS](#))

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- 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](#))

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- 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).