# Yesid Leonardo López Sierra

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I am a Machine Learning Engineer with experience building web applications and creating needs-based testing strategies. I enjoy working in companies that allow me to grow, learn, innovate and do research. I enjoy teaching others and learning new things. Additionally, I have experience in MLOps deploying models to production, scaling them, testing them, and using cutting-edge devices for inference when it is needed.

### **WORK EXPERIENCE**

Getsafe – Insurance Company

April 2022 - Present

July 2022 - Present

- Machine Learning Engineer
  - Implement Shadow and AB deployment to test ML models.
  - Improve monitoring for the ML models using MLflow
  - Extract and load data from Kafka to Snowflake
  - Support the data science team to create more mature processes in their daily job
  - Tools: Databricks, MLflow, AWS, cloud formation, snowflake, python.

Backend Engineer April 2022 - June 2022

- Implement features taking in mind a quality mindset using Ruby
- Refactor components to deploy them quickly to new markets
- Visualize insurance data to generate alerts when there are inconsistencies
- Lead automation testing strategy to improve the quality in the product
- Tools: Ruby, JavaScript, Periscope, CircleCI, SQL, React

#### Perficient - Outsourcing Company

Safe Fleet - Machine Learning Engineer

January 2019 - April 2022

June 2021 - April 2022

- Create a backend application to preprocessing frames in videos
- Design a distributed architecture to be able to scale ML models in cutting edge devices
- Develop a Geo localization tool to highlight routes in a map. Important to create data for other teams.
- Deploy applications and models in Jetson devices
- Build object tracking models to detect if a car is moving using state-of-the-art models
- Maintain computer vision model to detect curbs in streets
- Tools: Python, TF, OpenCV, Redis, Docker, Jetson Nano, AWS, Javascript, React

Maritz – Data Engineer May 2021 – June 2021

- Create synthetic data to train Google Auto ML models (NLP and Vision models).
- Evaluate NLP and Vision models.
- Create a Spring Bash application to generate PDF and images to train models.
- Improve the accuracy of the models based on tests for the models.
- Tools: Java, AutoML, Google Cloud, NLP, Spring Bash

Internal Project: Predictive Test Selection – Data Science applied in Testing

December 2020 - March 2021

- Create a model to select and prioritize tests that are more likely to fail
- Investigate and create supervised models like decision trees, neuronal networks and SVMs
- Create a plan for the investigation to get results fast
- Tools: Jenkins, Python, Javascript

Splunk - QA Automation Lead

February 2020 – May 2021

- E2E UI and API tests
- Integrate BDD through different automation levels using Cucumber
- Create automation strategy for several projects and do functional testing and test cases creation using TestRail
- Provide training to offshore members
- Tools: Javascript, Typescript, Node, Cucumber

Loan Logics - Software Development Engineer in Test

January 2019 – February 2020

- UI Component testing using protractor loading/downloading files and filling forms. Afterward, use TestCafe to migrate all tests and create drag and drop. Mocking http request using JSON server
- E2E API testing using Swagger code gen and Newman (Postman). Load/download files, authentication, and RESTful requests. The API tests usually replicate a UI flows

- Snapshot testing using tools like Pixel-diff and Percy to validate immutable UI components and docker to create visual baselines
- Contract testing to test communication between microservices using PACT JS and Pact broker
- Tools: Groovy, JavaScript, Jenkins, Swagger

#### **EDUCATION**

#### Universidad Icesi

Bachelor of Software Engineering
Master's degree in data science
GPA 4.3/5.0
GPA 4.5/5.0

#### **CERTIFICATIONS**

#### Coursera

DeepLearning.AI TensorFlow DeveloperDecember 2021Natural Language Processing in TensorFlowDecember 2021Sequences, Time Series and PredictionDecember 2021Convolutional Neural Networks in TensorFlowOctober 2021Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep LearningSeptember 2021

#### **PUBLICATIONS**

# Artificial Intelligence model to predict the virality of press articles

July 2020 – June 2021

NLP paper in which we studied the virality of two headlines to predict which one will be more viral

- Using different deep leaning architectures to find the one that could be more efficient
- Implement LSTM and BERT models as one of the proposals
- Use the transformer encoder as part of the best architecture to find the relation between the headline's words
- Tools: Python, TensorFlow, NLP, LSTM, BERT Transformers.

#### **SKILLS**

Programming Languages		Technologies
3 years:	Java, Javascript, Python, R	Pandas, Numpy, Sklearn, TenforFlow, Keras, NodeJS, TestCafe,
		Selenium, HTML, Git
1 years:	C#, Groovy	OpenCV, TensorBoard, CSS, JQuery, NodeJS, React JS, SQL,
		Unix/Bash, Junit, SCA, Visual Paradigm, Docker, AWS, Google Cloud
1 Semester:	PHP, C++	AutoML GCP, Databricks, Comet, Spark, Tableau, PowerBI, Nestjs,
		Nextis

#### **MAJOR PROJECTS**

# Machine Learning models to predict and cluster student drop out

January 2018 – December 2018

Data centric application that predicts if a software engineer freshman will drop out the bachelor's study, also a no supervised learning was developed to cluster the students that dropped out. Watch the video.

- Cluster students using the k-means clustering
- Predict retention of students using classification: KNN, neuronal network, SVM, decision trees and logistic regression
- Create an ETL to join data, preprocessing it and save it into a Postgres database
- Build the web application using Django
- Tools: Django, Python, JavaScript, Heroku, KNN, SVM, ANN, Postgres.

# **CDI Data mining**

June 2016 - November 2016

Program that shows which are the main attributes that influence chronic diseases

- Implemented and developed using C#.
- Designed making a process of data mining to analyze a dataset from the CDC.
- Developed using decision trees as the main model.

## **AWARDS**

- Cum Laude GPA
- Best grade project for Software Engineering at Icesi
- Scholarship for the best 0,01 results in Colombia and Scholarship for a master's degree