

# Ricardo Diaz

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- ❖ Languages: Python, SQL, C++, Javascript
- ❖ Frameworks: PyTorch, Keras, TensorFlow, Scikit-Learn, Opencv
- ❖ Tools: Git, Docker, AWS, Azure, Google Cloud Platform

## Education

**University of London**, London, United Kingdom  
**Bachelor of Science BSc** in Computer Science

Expected Grad Date May 2022

## Experience

**Machine Learning Engineer** at Everis NTT DATA

May 2018 - Present

- Designed a Cosmetics Recognition CNN with 98.60% classification accuracy and deployed it using Tensorflow Lite.
- Improved processes efficiency 99.30% by replacing old methods with Big Data using Spark on Databricks Azure.
- Applied a facial emotion recognition system in Pytorch to analyze customer satisfaction while being attended.
- Built a discounts recommender system using a Neural Collaborative Filtering model with implicit feedback in Keras.
- Delivered 3 machine learning workshop that include: How RNNs work and How to easily deploy ML using Docker.

**Independent Consulting** at Udacity

October 2018 - Present

- Assisted more than +500 students in a chat room for an Sentiment Analysis with Neural Networks project in PyTorch.
- Review about +70 project submissions monthly from 3 different ML related projects maintaining a 5 star rating.
- Contributed with the development of 2 different projects by providing feedback about students' performance and bugs.

**Machine Learning Freelancer** at UpWork

March 2017 - May 2018

- Worked with more than +8 clients in multiple projects maintaining a 5 star rating with a 100% job success score.
- Developed a Convolutional/Recurrent neural network model to caption images from news headlines.
- Built and trained a VGG like convolutional neural network to recognize three facial expressions with +93% accuracy.
- Debugged, modified and improved machine learning code from different frameworks like PyTorch and Tensorflow.

## Projects

**Personal Discounts Recommender** at Everis NTT DATA

November 2018 - February 2019

- Preprocessed the data of millions of interactions from more than +10mill users and +500k items using Spark.
- Achieved a +82% of recommendations accuracy by implementing a Neural Collaborative Filtering model using Keras.
- Created a containerized flask API using Docker to deploy the model in a production environment.

**Cosmetics Recognition App** at Everis NTT DATA

August 2018 - October 2018

- Designed a data collection pipeline to effectively build a dataset of +5k images in a couple days with a small team.
- Trained a MobileNet CNN in TensorFlow using transfer learning from imagenet to achieve a 98.60% accuracy.
- Deployed the model locally into a mobile app in both iOS and Android by converting it to TensorFlow Lite format.

**Tracking Customer Behavior System** at Everis NTT DATA

May 2018 - July 2018

- Developed a people tracking system using YOLOv3/DeepSort to analyze customer behavior inside an establishment.
- Used Opencv to graph a heat map of the different routes taken by the customers in the location's blueprint.
- Built an end-to-end pipeline to receive CCTV camera footage and output spatial analysis reports using Azure.

## Extracurricular

**Beta Tester** at Udacity

July 2018 - Present

As a Udacity beta tester, I utilize my specialized knowledge in the fields of Artificial Intelligence, Machine Learning and Deep learning and my strong communication skills to provide meaningful feedback from new course content and contribute to the development and improvement of new nanodegree courses.