

CÉSAR ANTONIO CONEJO VILLALOBOS

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EDUCATION

Carlos III University of Madrid, Spain

2020 — 2021

M.S. Statistics for Data Science

Department of Statistics

Thesis: *Application of Convolutional Neural Networks in the context of multiple hypothesis testing*

Advisor: Prof. Stefano Cabras

University of Costa Rica, San Jose, Costa Rica

2009 — 2014

B.S. Actuarial Science

Department of Mathematics

CURRENT EMPLOYMENT

Consultant, Professional Statistical Analysis

Set 2021 — Mar 2022

PROMIDAT/FISERV, San Jose, Costa Rica

I am working as a consultant creating a product solution for the LATAM section of FISERV. Responsibilities include the design of tables in a Hadoop environment, computation of several KPIs, and dashboard design focused on purchase and payment behavior for several banks processed by FISERV in the Latin America region. The project also provides segmentation analysis of the portfolio of customers and prediction models for customer attrition. The consultancy will finish on March 31, 2022.

WORK EXPERIENCE

Business Intelligence Senior Analyst

Set 2018 — Dic 2019

BAC Latam, San Jose, Costa Rica

1. Technical leadership: I provided mentorship and technical support for the data science team tasked with detecting the fraud patterns in credit/debit cards and acquiring business. I also reviewed experiments and assisted in the predictions models for other areas of the bank as the Compliance and Credit departments.

2. Information quality: I conducted activities related to ensuring data quality and consistency. I designed interactive dashboards for showing the evolution of the main KPIs and proactively challenge the presence of anomalies and deviations. Dashboards were used for data-driven decisions of the Business team in order to explain historical and current events related to fraud tendencies and chargebacks.

3. Technological solutions: I was responsible for the migration from structured manual business procedures to automatical systems, especially in the Chargebacks department.

Business Intelligence Senior Analyst

Jul. 2017 — Set. 2018

BAC Credomatic, San Jose, Costa Rica

1. Acquirer commerce review: I created SQL queries and R scripts to detect anomalies and deviations of the daily transactions associated with the distinct business. I used several techniques for detecting fraud cases, such as Outlier detection, Association rules, Time series, and other non-parametric approaches.

2. Actuarial Analysis: I applied actuarial validation techniques for the pre-feasibility of new insurance policies for acquirer commerce. Also, I estimated the required technical reserves for this new product based on three different actuarial techniques: Chain Ladder, Buhlmann, and Buhlman-Straub. Furthermore, I employed survival analysis in order to determine the life expectancy of the credit/debit cards produced by the bank.

Business Intelligence Junior Analyst

Dec. 2014 — Jul. 2017

BAC Credomatic, San Jose, Costa Rica

Credit/debit card fraud detection: I served as a fraud analyst for creating and deploying rules for detecting and declining fraud transactions and avoiding economic losses for the customers. The used techniques for recognizing the anomalies span the areas of supervised and unsupervised Machine Learning.

Actuary Intern

Jan. 2014 — Jun. 2014

National Bank of Costa Rica, San Jose, Costa Rica

I implemented a software application using Matlab that compares the financial institutes of Costa Rica, using a risk scorecard based on Moody's methodology.

COMPUTING SKILLS

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|-------------------------------|----------------------------------|
| Query languages: | SQL Server, DB2 AS/400, Impala |
| Scientific packages: | R, Matlab, NumPy + SciPy. |
| Machine Learning: | Scikit-Learn, Keras, TensorFlow |
| Optimization packages: | Pyomo, Gurobi. |
| Revision control: | GIT. |
| Dashboards: | PowerBI. |
| Digital typesetting: | L ^A T _E X. |

OTHER STUDIES

The University of Alabama, United States*Jan. 2020 — Mar. 2020***English Language Institute (ELI), Capstone International Center**

I took the Intensive English Program (IEP) offered by the ELI - Capstone International center addressed to students from around the world. It consists of an academic and cultural interchange program where the purpose of classes is to improve in English as a Second Language by taking core classes based on Reading/Writing, Speaking/Listening, and Grammar. The program also supports the interaction with students of the University of Alabama through optional classes of the undergraduate curricula.

**Ibero-American Data Mining Training Program, Costa Rica
Expert Program in Data Mining***Jun. 2016 — May. 2017*

This program consists of a 1-year online program of data science headed by the Costa Rican academic Dr. Oldemar Rodríguez. The selected coursework of the program consists of the following topics (all of them based on R programming language): Exploratory and Predictive Data Mining, Calibration and Selection of Data Mining Methods, Data Visualization, Time Series, Data Manipulation, and Web Mining. Finally, I realized a final graduation project based on a Churn Score for customers of credit cards for the Bank BAC-Credomatic.

ADDITIONAL INFORMATION

Languages: English (fluent), Spanish (native).**Personal:** Costa Rican citizen. ID-Number: 1-1438-0308. Single.**Interests:** Machine learning, Statistics, Causal inference, Operational research, Reproducible workflows.

REFERENCES

Dr. Oldemar Rodríguez Rojas

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School of Mathematics, University of Costa Rica

CEO PROMIDAT

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School of Mathematics, University of Costa Rica