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
Departament of Mathematics

PERSONAL INTERESTS

Machine learning, Statistics, Causal inference, Operational research, Reproducible workflows.

WORK EXPERIENCE

Consultant, Professional Statistical Analysis Set 2021 — Feb 2022
PROMIDAT/FISERV, San Jose, Costa Rica

I am participating in 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. The project also provides segmentation analysis of the portfolio of customers and prediction models for customer attrition.

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, 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. Also, 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

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:	LaTeX.

LANGUAGES

English (fluent).

Spanish (native).

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 *Jun. 2016 — May. 2017*
Expert Program in Data Mining

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, Inventory Prediction with 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.

REFERENCES

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