

# CÉSAR A. CONEJO VILLALOBOS

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San José, Costa Rica

Pérez Zeledón, Zip Code: 11903

## EDUCATION

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**Carlos III University of Madrid, Madrid, Spain**

*September 2020 — Present*

M.S., Statistics for Data Science

Department of Statistics

Master thesis: (In progress)

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

Advisor: Prof. Stefano Cabras

Expected Completion: September 2021

**University of Costa Rica, San Jose, Costa Rica**

*2009 — 2014*

B.S., Actuarial Science

School of Mathematics

## RESEARCH INTERESTS

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Machine Learning, Causal Inference, Stochastic Programming, Reproducible workflows.

## OTHER STUDIES

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**The University of Alabama, United States**

*Jan. 2019 — Feb. 2019*

**English Language Institute (ELI), Capstone International Center**

I took some intensive English classes in the areas of reading, listening, speaking and writing. Also, I interacted with students from several countries and native English speakers.

**Ibero-American Data Mining Training Program, Costa Rica**

*Jun. 2016 — May. 2017*

**Expert Program in Data Mining**

In this online program, taught by Dr. Oldemar Rodríguez, I learned and went deep into the following task: Exploratory Data Mining Methods, Predictive Data Mining Methods, Programming in R, Calibration and Selection of Data Mining Methods, Data Visualization and Interpretation, Inventory Prediction with Time Series, Data Manipulation, Web Mining with R and Big Data Analysis.

## WORK EXPERIENCE

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**BAC Latam, Costa Rica**

*Set 2018 — Dic 2019*

*Business Intelligence Senior Analyst*

- **Development of metrics and interactive dashboards:** Created complex SQL queries and R scripts to calculate and store key business metrics for explaining historical and current events related to fraud tendencies and chargebacks. Designed interactive dashboards for showing KPIs to the business team using PowerBI.

**BAC Credomatic, Costa Rica**

*Jul 2017 — Set 2018*

*Business Intelligence Senior Analyst*

- **Design and development of algorithms for credit card fraud detection:** Applied different techniques such as supervised machine learning algorithms and association rules for detecting patterns of anomalous transactions using R Services and SQL.
- **Analysis of merchant commerce:** Built machine learning models for outlier detection using isolation random forest (solitude R package) and time series anomaly detection (Anomalize R package) for acquirer commerce transactions.

#### **BAC Credomatic, Costa Rica**

Dec. 2014 — Jul. 2017

*Business Intelligence Junior Analyst*

- **Development of statistical models:** Implemented unsupervised techniques for classification and clustering of customers for churn analysis, customer behaviors, and customer lifetime value models.
- **Actuarial analysis:** Applied actuarial valuation techniques for the study of the pre-feasibility of new insurance for acquirer commerce. Also, I applied survival analysis to calculate the lifetime of cards used by the bank.

#### **National Bank of Costa Rica**

Jan. 2014 — Jun. 2014

*Junior Actuary Intern*

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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<b>Scripting languages:</b>	Bash.
<b>Query languages:</b>	SQL Server, DB2 AS/400
<b>Scientific packages:</b>	R, Matlab, NumPy + SciPy
<b>Deep Learning packages:</b>	Keras, TensorFlow
<b>Revision control:</b>	GIT.
<b>Digital typesetting:</b>	L <sup>A</sup> T <sub>E</sub> X.

### **LANGUAGES**

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English (fluent).

Spanish (native).

### **REFERENCES**

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#### **Dr. Alvaro Guevara Villalobos**

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School of Mathematics

University of Costa Rica

#### **Dr. Luis Barboza Chinchilla**

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