



Mariano Sebastian Calvo Alvarez

Calvo Alvarez

Argentina

Education

Graduated in Mathematics in Mathematics, Buenos Aires University, AR, 1997

Posgraduated in Capital Markets in Economics, Buenos Aires University and Mercado de Valores de Buenos Aires S.A., AR, 2010

Languages

English - Good

Spanish - Fluent

Publications

Producto Bruto Geográfico de Bs As: Estimador de Horvitz-Thompson vs. Estimador de regresión", 2003

"Personality profiles and estrogens levels", 1999

"Realidades y mitos de la AUTOGESTIÓN", 1998

Profile

I am Subject-Matter Expert in statistical models using of Python with a focus on process improvement and automation using Big Data, Machine Learning & AI. I'm graduated in Mathematics and then post-graduated as Capital Markets specialist. I have experienced in various branches of data science to deliver structured, semi-structured and unstructured data products based on client needs. More than 20 years of experience in IT-programming as data scientist in industries like Banking, Telecommunications, Healthcare and Government, and specializing in Business Decisions and Next Best Action for Financial/ Commercial Services. Also I make brokering to private investors as Charles SCHWAB™'s platform trader in NYSE, and delivering equity rating reports.

Key skills

Industries: Banking - Telecommunications - Healthcare

- DM Application developer: Python, R and SPSS™ (Modeler -Statistics) for data-bases
- D/ML modeling NLU/NLP by NLTK, Gensim and SpaCy with Pytorch programming
- Forecasting and Fraud Management
- Churn – Up/Cross selling models
- Social Media segmentation
- Stock technical analysis
- Salesforce Enablement for IBM Professionals (Consultant)

Key courses and training

1) Udemy, Cognitiveclass and selfstudy training in Python/Pytorch cloud environment on S3/AWS, IBM Cloud Pak for Data and IBM Cloud (since 2019)

1) "Salesforce Enablement for IBM Professionals Course": SF Foundation (Admin Beginner + Admin Intermediate + Admin Advanced) – SF Consultant Foundation (Service Cloud Foundation + Sales Cloud Foundation) (2018)

2) Self Study Training in Python and R programming with RStudio/Anaconda/Googlecolab local (since 2015)

3) "Financial calculation applied to Capital Markets" Course given by INSTITUTO ARGENTINO DE MERCADO DE CAPITALS (March 2012)
Instructor: Lic. María Cristina Defrieri (Universidad de Buenos Aires / Merval / BCBA)



4) "Introduction to the Capability Maturity Model® Integration, Staged Representation, v1.1" PROFFESIONAL EDUCATION SERIES
Workshop given by the Software Engineering Institute of Carnegie Mellon University (November 2004).
Instructor: Ing. Nick Weisz

5) "Modern Sampling technics"
Course given by INDEC (National Institute of Statistics and Censuses) and Tres de Febrero University (July 2001)
Professor's Team: Gerardo Mitás, (MSc), Lic. Gonzalo Mari y Lic. Sergio Passamonti.

6) "Robust methods"
Seminar given by Instituto del Cálculo de la Facultad de Ciencias Exactas y Naturales - Universidad de Buenos Aires (July 1997)
Professor: Rubén Zamar (PHD) - Vancouver University

8) "Time Series"
Seminar given by Instituto del Cálculo de la Facultad de Ciencias Exactas y Naturales - Universidad de Buenos Aires (March 1997)
Professor: Víctor Yohai (PHD) - Universidad de Buenos Aires.

Work experience

Survey's interviewers trainer – Databases designer

Gobierno de la Ciudad Autónom de Buenos Aires, Argentina | Jan 2000 - Oct 2004

1. Data collection design survey. Interviewers tracking monitoring and training. Statistical data processing to and from flat format ACII, XLS to SPSS™, SAS™ and E-View™. Monthly graphs and tables edition to INDEC presentations.
2. Processing of BUENOS AIRES Household Expenditures Survey and Monthly Industrial Survey to National Statistical System

Geographic Information Systems Manager

Universidad Nacional de LA PLATA – CONICET, Argentina | Jan 2000 - Jun 2000

Digitalization (re-digitalization Arc Info™ to Arc View™) of geographic location to analysis of Energy profiles inside arctic™ environment. Design of districts and parcels (points, lines and polygons. Scale presentations and exploring data to entry in database. Questionnaires for Multistage Sampling (PSU, USU and Housing Units geographic sampling). Complex sampling designs to tracking. Filters and clusterizations. 1-order statistical consistency index (t-TEST, Smirnof-Kolmogorov-TEST y Chi2-TEST). Tables and charts reporting. GIS tool resources training.

Developer and datawarehouse web-databases programm

Policía Federal Argentina, Argentina | Aug 1998 - Oct 2004

Statistical data processing to and from flat format ACII, XLS to SPSS™ and Minitab™. Monthly graphs and tables edition reporting. Secure protocol tracking



and results by patients, medical services, physician, etc to P.N.G.C.A.M. (Health Care Quality Assurance National Program). Health Schedule Resources management through SQL programming databases.

SPSS-tables editions and database processing

Ministerio de Cultura y Educación de la Nación, Argentina | Mar 1998 - Feb 1999

1. Data collection design survey. Interviewers tracking monitoring and training. Statistical data processing.
2. Socioeconomic stratified clusterizations. Analytical validation Cronbach correlation index

Assignment history

Datascience

TELECOM ARGENTINA, Argentina | Feb 2021 - Present

Project name: Telecom Cognitive Contact Center

Implementación de Watson Assistant virtual e integración de los servicios cognitivos IVRs de canales digitales. Desarrollo de modelo matemático real time en IBM Cloud Paq for Data (python) y Cognos para determinación de intenciones de usuarios del asistente cognitivo Watson para entrenamiento del Intelligent Router (derivador Watson a los distintos casos de uso de UX)

Contribution: Definición de estrategias y desarrollo de código para el entrenamiento supervisado del asistente cognitivo STT y TTS según preguntas frecuentes de clientes sobre una solución de NLP para extraer metadatos del contenido (conceptos, entidades, palabras clave, categorías, sentimientos, emociones, relaciones y roles semánticos) desarrollados con Watson Knowledge Studio, python y extendido a una solución deep learning de mejora continua para la desambiguación de intenciones y control de performance del asistente cognitivo

Business Analyst - Datascience

Banco de Occidente (Grupo AVAL), Colombia | Mar 2020 - Dec 2020

Project name: Líder de Analítica

Diseñar, desarrollar y validar la eficacia de la arquitectura de solución analítica de 2 modelos predictivos y 1 de microsegmentación del comportamiento de clientes empresariales del banco basados en Python, con incorporación de Watson Knowledge Studio para procesamiento de text-mining en sectores comerciales e industriales y de información propia del banco, alineado a la metodología CRISP-Data Mining

Contribution: Identificación de entidades comerciales/financieras frecuentes mensuales basadas en cash flows y fundamentals de clientes de la banca Empresas para la diferenciación de acciones comerciales oportunas según crecimientos / decrecimientos del sector de pertenencia

TELECOM - #FAN, Argentina | Jun 2019 - Feb 2020

Project name: Business Analyst



Discovery y análisis funcional de procesos de servicios a clientes para asistir al diseño y arquitectura para el documento de especificación en la implementación del CRM basado en SALESFORCE. Documentación del Enterprise Product Catalog del CRM Vlocity_Salesforce según Product Mgmt, Foundation, Pricing, Metadata, Rules y Layout Mgmt en Spikes y DoD. Refinamientos del Sprint en metodología AGILE

Advanced Analytics

EDW TELECOM - #FAN Integration, Argentina | Sept 2017 - Apr 2019

Project name: Data Scientist

Micro-Segmentation of mobility customer: Action Clusters – Feature Vectors methodology on Demo/Geographics, Behavioral/Attitudinal and Active Time / Event Type and Success duration call through cellular channels: SMS / Voice / Data for development of predictive models aligned to micro-segments in:

- a. Determination the correct channel to reach the customer and Probability that the customer will respond
- b. Churn prevention when customers likely to churn from the current list of active customers
- c. Discovering NPS (Net Promoter Score: Promotor/Pasive/Detractor) drivers to identify root causes for poor NPS aligned to customer satisfaction

Data Scientist

GBS - Strategy & Analytics SSA: BANCO MACRO | Nov 2014 - Mar 2017

Micro-Segmentation of customer Active/Pasive portfolio: Action Clusters – Feature Vectors methodology on Demo/Geographics, Behavioral/Attitudinal and Financial/Risk/Purchase profiles, using channels: IVR / POSNET / ONLINE / BRANCH / ATM / TAS / Central Bank of Argentina (BCRA reports), to

- 1) Development and implementation of predictive models aligned to micro-segments in:
 - a. Identification of Up and Cross-selling opportunities in customers
 - b. Churn prevention when customers aren't likely to renew their Loyalty Packages.
- 2) Risk Management (data mining) in:
 - a. Market risk vs. Delay in Payment prevention
 - b. Identification of fraud on Credit/Debit Card.
- 3) Next Best Action: Data refresh for customer scoring and routines for DW' updatings

Data Scientist

DISNEY ARGENTINA | Jul 2014 - Oct 2014

NPL classification for Sentiment Analysis in opinions from TOPA's followers (a local Disney celebrity) using

- 1) Processing of No-Directed surveys from web-site
- 2) Snippet extracting as twitter-concepts/categories with creating a word-cloud for the various keywords extracted (by specific hashtags) from api.twitter.com



GBS - Strategy & Analytics SSA: ZURICH SEGUROS | Nov 2013 - Jun 2014

Customer targeting and Risk Fraudulent Claims Propensity in Scoring Model: Action Cluster Segmentation, definition of induction rules and thresholds risk in fraudulent claims to insurance auditing of accidents. Benefit/Cost trend analysis on renewals.

GBS - Strategy & Analytics SSA: CABLEVISION | Mar 2013 - Jul 2013

Process Performance Model (Cable-modems & Internet) vs. Customer Satisfaction survey – Master Data Management by control charts to test Process Capability Baselines for KPIs vs. SLAs and Operational Risk Management: Covariance of indicators.

CMMI5 - SME Consultant

IBM - GBS - Process Methods & Tools SSA: CMMI5 | Oct 2004 - Jul 2013

IT Architect and SME to develop-verify-validate CMMI Level 5: Certificate obtained by Software Engineering Institute of Carnegie Mellon (July 2013 - December 2009 - December 2005)

Account Measurements Coordinator:

- To analyze, to prioritize, to plan and to coordinate the development of the improvements and the innovating improvements to the processes of the Organization
- Maintain the integrity of the published assets of Metric in the AS SSA OnDemand Process Asset Library, respect to model CMMI level 5.
- To offer support in methodology and analysis of data (SPC-tracking) to the projects of AS SSA. Reporting trends and predictors of Gross Profit Vs. Forecast: Estimates of regression, Probabilistic simulation model and Bayesian model
- To offer support and training to Metric Team and members of the Organization in methodologies and standards of the industry of the SW. To offer Benchmark's rates and definition of SLAs (Service Level Agreements) with Customer.
- To plan and implement new methodologies and initiatives to Organization. CMMI level 5 Deployment and models under the SixSigma environment.
- Cost/Benefit Analysis Reports: Hypothesis testing to improvements implemented - Control charts to test Process Capability (Baselines) for Quality Objectives vs Performances analysis - Agreed service levels and associated risk: Covariance of indicators.
- Reporting trends and predictors of Gross Profit Vs. Forecast: Estimates of regression, Probabilistic simulation model and Bayesian model.