

Juan Sebastian Roa

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Summary

Committed and experienced data analytics professional, bilingual (English, Spanish), with a proven ability to effectively solve problems for the largest multinational companies in telecommunication and CPG industries. A results-driven and hands-on leader. Expert in the discovery of helpful insights to support decision-making process and deploying data science applications to increase business profitability and performance.

Education and Honors

Universidad de los Andes	Bogotá, Colombia
Full-tuition scholarship	
Master of Science in Industrial Engineering	Jan 2012 - May 2015
Universidad Militar Nueva Granada	Bogotá, Colombia
Graduated with honors	
Bachelor of Science in Industrial Engineering	Jan 2006 - May 2011

Certification and Courses

- DataCamp - Data Scientist with Python Career Track (September 2020)
- PMI - Project Management Professional (PMP) (June 2017 - June 2023)

Technical Skills

- **Programming languages:** Python, SQL, MySQL, Matlab
- **Machine Learning:** Linear regression and classification algorithms, deep learning, Principal component analysis (PCA), Support Vector Machines (SVM), Random Forest, Extreme Gradient Boosting, neural networks, segmentation/clustering
- **Libraries:** Matplotlib, Seaborn, Pandas, NumPy, Scikit-Learn, SciPy, Keras, TensorFlow, BeautifulSoup, Flask
- **Analytics:** Power BI, Data Studio, Excel
- **Data Science:** Statistics, Hypothesis testing, GitHub, Data science pipeline (manipulation, cleaning, visualization, modeling, testing, interpretation)

Professional Experience

Freelance	Jersey City, NJ
<i>Data Scientist</i>	Jan 2020 - Present

- Project: End-to-End Churn prediction for KKBOX customers
 - ✓ Reached a ROC-AUC score of 99.98% in Cross-Validation and 94.01% in test-set applying Random Forest classifier.
 - ✓ Performed exploratory data analysis and data consolidation for 5 datasets with 5+ million records.
 - ✓ Deployed a machine learning web-app in Streamlit and Heroku: <https://churn-web.herokuapp.com/>
- Project: End-to-End Handwritten prediction
 - ✓ Obtained a 98.46% accuracy to predict handwritten digits (MNIST dataset) through Artificial Neural Networks.
 - ✓ Used TensorFlow and Keras to train the model.
 - ✓ Deployed an App using HTML, CSS, Flask to predict digits written by people.
- Project: House price prediction for individual residential property in Ames, Iowa
 - ✓ Achieved a root mean squared error (RMSE) of 165 USD using Extreme Gradient Boosting (XGBoost) regressor.
 - ✓ Model performance improved by 35% applying exhaustive feature engineering and hyperparameter tuning.
- Project: Scraping data from Airbnb locations in New York City
 - ✓ Used BeautifulSoup Python library to collect more than 5K records from Airbnb website.
 - ✓ Performed Exploratory Data Analysis using Seaborn, Matplotlib.
- Project: Dashboard implementation
 - ✓ Implemented dashboards using Power BI, MySQL, and Youtube Analytics API for an internet-based company.

- ✓ Automated data collection, achieving a time reduction in that process of 2 hours daily.

Global Hitss

Business Intelligence Coordinator

Bogotá, Colombia
Dec 2018 - Jan 2020

- Managed a team of 8 employees responsible for commercial data analysis.
- Implemented data-informed strategies to improve profitability.
- Deployed a cluster model to optimize the sales process. Sales productivity increased by 30%.
- Implemented Power BI, achieving reporting automatization and saving more than 2 hours of data processing daily.

Atento

Business Intelligence Coordinator

Bogotá, Colombia
Jun 2015 - Dec 2018

- Managed business intelligence process for commercial direction. Dashboards updated and tracking reports delivered for 700+ sales force and more than 20 managers daily.
- Supervised a project to standardize sales information, reducing the number of claims by 40%.
- Delivered sales data on time to ensure more than 200K USD in monthly commissions were paid efficiently.

ARCOM

Data Analyst

Bogotá, Colombia
Jul 2014 - Jun 2015

- Planned and allocated resources for help-desk operations, optimizing cost and productivity.
- Developed dashboards to support decision-making.
- Executed an optimization model, reducing operational cost by 28%.

Universidad de los Andes

Teaching Assistant

Bogotá, Colombia
Jan 2012 - Jan 2014

- Supported the associate professor of probability and statistics in logistics and academic duties.
- Managed a team of 4 undergraduate instructors.

Grupo Bimbo

Supply Chain Analyst

Bogotá, Colombia
Jan 2011 - Jan 2012

- Implemented "Visual Dispatch" project in main distribution centers. Productivity increased by 30%.
- Developed the key performance indicators and dashboards for dispatch managers.
- Trained a group of 30+ operators to use Visual Dispatch project and manage these significant changes.

Leadership

- Cofounded a company dedicated to Analytics and Machine Learning projects in SMEs companies.
- Supported the associated professor to grade coursework, teach complementary sessions, and answer students' questions.