[English vs.]

Christian Fonseca

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Education

Universidad Nacional de Ingeniería (UNI) — Lima, Peru
B.S. in Mechatronics Engineering — *August 2011–December 2015*

Centre for Development in Advanced Computing (C–DAC) — Pune, India
Diploma in Advanced Computing — *March–December 2015*

E-Learning [cert.]
• Udacity: Computer Vision Nanodegree, Deep Learning Nanodegree.
• Coursera: Deep Learning Specialization, Mathematics for Machine Learning Specialization, Tensorflow: Data and Deployment Specialization.

Work Experience

BBVA — Lima, Peru
Expert Data Scientist | Financial Data & Advanced Analytics CoE — *June 2021–Present*
Main Role: Management and development of financial predictive and non-predictive analytics projects.
• Created a recommendation system for client characterization using transactional data, resulting in a 10% increase in debit card sales and a 5% increase in the purchase of other financial services for corporate banking clients.
• Improved expert evaluation of billing accuracy by 50%, using forecasting and elasticity models in retail budgeting.
• Boosted corporate customer acquisition by 15% through cost calculation system development.
• Implemented the RORC threshold selection, resulting in a 5% monthly decrease in the number of high-risk clients.

Banco de Crédito del Perú (BCP) — Lima, Peru
Senior Data Scientist | Risk Management — *November 2019–May 2021*
Main Role: Risk predictive models monitoring and tracking.
• Streamlined early lead evaluation process in commercial banking using credit scores and predicted income, reducing evaluation time for initial predictions from 2 days to less than 1 minute and 1 hour including the advisor time.
• Achieved a 10% improvement in customer acquisition prediction accuracy through the use of graph modeling for analyzing customer transaction relationships.
• Designed a cross-product toolkit for univariate and multivariate analysis, with a feature value test for predictive models, resulting in a 30% reduction in data scientists' analysis time.
• Built cross-product toolkit for IFRS-9 model and score/parameters/metrics tracking, reducing tracking time by 50%.
• Evaluated prediction models, detecting potential changes in 6 months via portfolio projections and reliability evaluation.
• Developed transactional data insights search and dashboard deployment giving KPI's for different bank business units.

Rimac Seguros y Reaseguros — Lima, Peru
Data Scientist | Artificial Intelligence & Data Analytics CoE — *August 2018–November 2019*
Main Role: Predictive Modelling for insurance business cases using Amazon Web Services (AWS).
• Graph modeling for detecting fraud in vehicle policy reducing investigation times by half, from 6 to 3 months, enabling quicker identification of potential fraudsters.
• End-to-end pricing modeling for vehicles and SOAT risk assessment resulted in a 20% sales increase for these policies, achieved by using pricing personalized modelling.
• Reduced pre-processing time of predictive models by 20 times using PySpark on AWS.
• Automate predictive model execution monthly or on demand using AWS (Lambda, ECS, ECR, S3).

Accenture — Lima, Peru
Application Development, Associate | NewAO Team — *January 2018–August 2018*
Main Role: Solve and Propose banking/insurance user stories, requirements and improvements using different technologies.
• Reduced back-office times from around 2-4 hours to 10 minutes daily for massive data collection using Python and AA**(*)**.
• Started my experience in bank data modeling and structuring using pyspark in AWS Cloud9, constructing variables for data science processes.
• Involved in the analysis, design and development of innovation projects, including app development and AI implementation in business cases, with a focus on integrating open-source code and proprietary software using Scrum Framework.

University of Engineering and Technology (UTEC) — Lima, Peru
Research Assistant | Electronic Engineering Department — *April 2016–January 2018*
Main Role: Develop a real-time Brain-Computer Interface (BCI) for post-stroke patients.
• Focused in programming digital signal processing and machine learning algorithms to enhance BCI performance by 10%.
• Proficient in Deep Learning algorithms using Tensorflow, and Torch in Python/C++ for EEG signals classification.
• Developed user interfaces in C++ for brain signal acquisition based on ERP paradigms and Sensorimotor rhythms.
• Analyzed EEG data using statistical methods in R to optimize channel number and improve acquisition performance.

National University of Engineering (UNI) Lima, Peru
Undergraduate Researcher | Smart Machines Lab *April 2014–December 2015*
Main Role: Develop and assist different Robotic and Artificial Intelligence projects.

- Improved exo-arm movement precision using Fuzzy and Advanced Controllers by 5%.
- Developed Genetic and Neuronal Network algorithms for electromyographic signals classification using Matlab.
- Implemented object recognition of standard polygons and hand movement using OpenCV and Matlab with an IP Camera.
- Designed navigation algorithms and route planning for mobile autonomous robotics using Matlab and C++.

Teaching Experience

Data Mining Consulting (DMC) Lima, Peru
Programs Delivered: December 2021–Present

Specialization in Machine Learning & Deep Learning in Python (ed. VII, IX, XI), MLOps Inmersion (ed. III), Machine Learning Engineering (ed. III), Deep Learning in Python University Immersion (ed. I), Deep Learning in Python (ed. I, III, V) and Python Fundamentals (ed. I).

Course/s Delivered: Artificial Intelligence, Machine Learning & Deep Learning Fundamentals, EDA, Models (Supervised/Unsupervised), Neural Networks, Text Mining, Python Fundamentals, Data Structures & Libraries, Main Modules, Functions, Visualization, EDA, ML in Production, CI/CD, Workflows, Testing, Versioning, MLOps.

La Molina National Agrarian University (UNALM) | BPC Business School Lima, Peru
Programs Delivered: November 2020–Present

Advanced Specialization Program (PAE) in Big Data and Data Science (ed. 28°, 29°, 30°), Advanced Specialization Program (PAE) in Big Data and Analytics (ed. 24°), Advanced Specialization Program (PAE) in Data Science for Business (ed. 4°)

Course/s Delivered: R & Python for Analytics and Data Science, Machine Learning and Prescriptive Solutions, Deep Learning Models, Flask.

Skills & Interest

Software Skills: Advanced in Python/PySpark, C++, C♯, PL/SQL, Matlab, SAS. Familiar with JavaScript, Angular, Flask, OpenCV, Google Cloud Services, Big Data platforms (Hadoop, Hue, Impala, etc). Experienced with Git, AWS (SageMaker, Cloud9, Lambda, S3, etc.), Unix/Linux, Automation Anywhere**(*)**.
Languages: Fluent in English and Spanish.
Interests: Self-taught in ML and Data Science topics, taking courses on Coursera and Udemy, reviewing books/papers, participating in AI hackathons, seeking to contribute to open-source projects and developing software/hardware projects.

Honors & Awards

- Registered as a researcher by Renacyt-Peru at Maria Rostworowski I level - P0023071.
- Finalist Rimac 2022 Hackathon.
- Ranked 2^{nd} in Entel 2021 Datathon.
- Ranked 1^{st} in Belcorp 2019 Datathon.
- Publisher and Reviewer in different National and International Conferences (2017-2021) [Scholar].
- Graduated from National University of Engineering in the top ten percent of Mechatronics Engineering major.