

## FRANCISCO FRANCO ARENAS

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### EDUCATION

**Syracuse University**, School of Information Studies, Syracuse, NY

August 2024

**M.S. in Applied Data Science**

*Relevant coursework:* Applied Machine Learning, Database Management, Information Visualization, Big Data Analytics

**Polytechnic University of Madrid**, High School of Industrial Engineers, Madrid, Spain

April 2015

**Bachelor's and Master's Degree in Industrial Engineering**

**ICEX-CECO Business School**, Madrid, Spain

September 2019

**Public Administration Entry Exam Course for the High Corps of State Economist and Trade Experts**

### WORKING EXPERIENCE

**Senior Advisor**, Ministry of Economic Affairs, Dept. of Macroeconomics, Madrid, Spain.

August 2022 - July 2023

- Acted as a key advisor on policy matters, analyzing economic conditions and delivering policy recommendations to top officials using ggplot, matplotlib and Power BI to inform strategic decision-making processes affecting national economic policy design.
- Orchestrated a significant data migration project, overseeing the transition of vast amounts of critical economic data from on-premise servers to a cloud-based infrastructure in Microsoft Azure, developing Pyspark and SQL scripts, reducing execution times by more than 90%.
- Served as the primary communication nexus between the ICT and Business teams, bridging technical and domain knowledge gaps, facilitating cross-functional meetings, clarifying technical requirements, and ensuring alignment with business objectives.

**Vice-Deputy Director**, Ministry of Economic Affairs, Dept. of Macroeconomics, Madrid, Spain.

October 2021 - August 2022

- Pioneered the incorporation of machine learning, specifically Python-based random forests, into policy development, achieving a significant increase in analytical accuracy compared to legacy methods such as linear regressions.
- Coordinated 20 people for the development and publication of Spain's Stability Program using Microsoft Planner and establishing an efficient collaborative platform in Microsoft SharePoint, reducing operational errors and revision times by more than 50%.

**Head of Area**, Ministry of Economic Affairs, Dept. of Macroeconomics, Madrid, Spain.

May 2021 - September 2021

- Established a data pipeline for electricity market data, utilizing PySpark to transform raw data into a data warehouse in HIVE, uncovering insights into supplier pricing strategies, directly influencing the reform of the national electricity market framework.
- Led Spain's delegation in EU Council working groups focused on economic analysis, contributing to raising standards in common agreed methodologies for the Stability and Growth Pact and the Macroeconomic Imbalance Procedure.

**Head of Service**, Ministry of Economic Affairs, Dept. of Macroeconomics, Madrid, Spain.

December 2019 - April 2021

- Conducted comprehensive simulations using DSGE models to evaluate COVID-19's economic impact on Spain's economy, providing essential data to guide public health and economic responses, notably into the design of the Spain Recovery Plan.
- Revamped Matlab and Gretl-based legacy software for economic analysis, transforming it into modern, state-of-the-art R and Python, resulting in faster execution, streamlined user experience, and enhanced operational efficiency.

**Associate**, Axon Partners Group, Corporate Finance division, Madrid, Spain.

October 2014 - April 2016

- Assisted M&A operations and fundraising efforts for global clients across diverse industries using Excel for analysis and PowerPoint for proposals, playing a critical part in closing deals over 100 million euros.

### TECHNICAL SKILLS

**Certifications:** Microsoft Office Specialist: Excel Associate (Office 2019)

**Programming Languages:** R, Python, SQL Spark, Matlab.

**Software:** Advanced user of Word, Excel, and PowerPoint, Azure SQL server, Visual Studio Code, Azure Data Studio, Databricks.

**Foreign languages:** Spanish and French.

### LEADERSHIP EXPERIENCE

**Team Leader**, Ministry of Economic Affairs, Dept. of Macroeconomics, Madrid, Spain.

October 2021 – July 2023

- Directed and mentored a team of 5 economists, fostering professional development and elevating team expertise, while also leading a 3-person ICT unit in a 40-member department.

**Professor**, ICEX-CECO Business School, Madrid, Spain.

February 2020 - August 2021

- Instructed a class of 10 students and conducted one-to-one classes for more than 20 candidates preparing for the entry exam for the High Corps of State's Economist and Trade Experts on economics and international trade.