

DIEGO RODRIGUEZ

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EDUCATION

Duke University

Durham, NC

Master of Science in Interdisciplinary Data Science

Expected May 2026

- Relevant Courses: Natural Language Processing, Statistical Modeling, Data Engineering, Python Data Science, Machine Learning

Massachusetts Institute of Technology

Cambridge, MA / Santiago, Chile

Dual Data Analytics Certificate

May 2019 – Jan 2020

- In Conjunction with University of Chile
- Relevant Courses: Applied Machine Learning, Data Analytics, CRISP-DM methodology

University of Chile

Santiago, Chile

Professional degree in Management and Economics

Mar 2014 – Dec 2018

- Equivalent to a Bachelor of arts in Economics with minor in Management
- Relevant Courses: Statistics, Time Series, Econometrics, Quantitative Research, Macroeconomics
- Graduated with distinction

TECHNICAL SKILLS

- **Languages:** MATLAB, Python, R, Eviews, Stata, SQL, HTML, LaTeX.
- **Tools:** Dynare, Spyder, Pycharm, Jupyter Notebook, Google Colab, Bloomberg terminal, Excel, Word, PowerPoint, PowerBI, PowerAutomate, VS code, Github, Gitlab, AWS, PySpark, Databricks.
- **Libraries:** BEAR, dplyr, ggplot2, Pandas, NumPy, Scikit-learn, Plotly, Matplotlib, NLTK, Pytorch.
- **Others Software:** Teams, Notion, Obsidian, Wix, Canva, DaVinci Resolve, Youtube Studio, Overleaf.

EXPERIENCE

Central Bank of Chile

Santiago, Chile

Senior Analyst

May 2023 – Aug 2024

& Jul 2021 – Apr 2022

- Conducted in-depth data analyses and reports on the United States and China for the board of governors and the public stakeholders.
- Led the development of a PowerBI dashboard, integrating SQL and Excel data, to monitor the international markets, which is utilized by over 70 colleagues.
- Published 5 machine learning studies to enhance regular reports, featuring over 7,000 visualizations.

OECD

Paris, France

Economist (Secondment)

May 2022 – Apr 2023

- Collaborated on preparing working documents on various analytical topics with a focus on Latin America and contributed to the creation of reports that received media coverage.
- Assisted with data forecasting for Mexico using supervised learning techniques in Stata.

Central Bank of Chile

Santiago, Chile

Economic and Financial Analyst

Nov 2018 – Jun 2021

- Forecasted and documented commodity price trends using machine learning techniques in EViews.
- Led the creation of an automated dashboard using Wix and APIs to monitor COVID-19 developments, providing insights for high administration and the Board of Governors.
- Prepared weekly presentations to communicate data analyses to both internal and external stakeholders.

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PROJECTS

R.1 Dynamics of service inflation and R.2 Copper prices (Minutes cited in Monetary policy report (Category: Supervised Learning and Time Series, Document available only in Spanish) <i>Tech: Eviews, Matlab, Excel</i> <ul style="list-style-type: none">Created a VECM model to forecast global goods and services inflation based on their relative prices.Collaborated and guided with the strategy identification for the Time series model.	<i>Jun 2024</i>
Caldera Sanchez et al. (2024) Independent Fiscal Institutions: A typology of OECD institutions and a roadmap for Latin America, OECD Economics Department, Working Papers, No 1789, OECD Publishing, Paris (Category: Unsupervised Learning, OECD Library) <i>Tech: R studio, Excel, Word</i> <ul style="list-style-type: none">Conducted descriptive analysis of the 2021 OECD Fiscal Council database and assisted with drafting.Identified key features in data to create a development roadmap for fiscal councils in Latin America.	<i>Jan 2024</i>
Risks to International inflation convergence, Minutes cited in Monetary policy report (Category: Supervised Learning, Document available only in Spanish) <i>Tech: MATLAB, Excel</i> <ul style="list-style-type: none">Developed a Bayesian VAR model with sign restriction identification to assess future changes on inflation.	<i>Mar 2024</i>
Dashboard – International Economy (Category: Cloud Computing, Data Visualization) <i>Tech: PowerBI, SQL, DAX</i> <ul style="list-style-type: none">Developed a dashboard to monitor economic data of Chile's key trading partners.	<i>Jan 2023</i>
Recovery of the Labor Force After the Pandemic: International Comparison, Minutes cited in Monetary policy report (Category: Supervised Learning, Document available only in Spanish) <i>Tech: Stata, Excel</i> <ul style="list-style-type: none">Estimated a panel model to analyze how different shocks affected the labor force following the pandemic. Mobility restrictions, economic recovery, and fiscal policy were major drivers of labor force recovery.	<i>Sep 2022</i>
Recovery of Global Investment During the Pandemic: International Evidence, Minutes cited in Monetary policy report (Category: Supervised Learning, Document available only in Spanish) <i>Tech: Eviews, Excel</i> <ul style="list-style-type: none">Estimated a Bivariate Panel VAR model to assess the impact of residential building permits on construction output. Findings indicate that a 1 standard deviation increase in residential building permits leads to an average 3 percentage point increase in construction output over 2 years.	<i>Sep 2021</i>
Economic Impact of Restrictions: Panel Estimates from International Evidence, Minutes cited in Monetary policy report (Category: Supervised Learning, Document available only in Spanish) <i>Tech: Stata, Excel</i> <ul style="list-style-type: none">Estimated a panel model to analyze the diminishing effects of the pandemic on economic output. Findings indicate a 30-100% reduction in the impact of pandemic variables on economic activity.	<i>Dec 2020</i>
Dashboard – Covid-19 Pandemic (Category: Cloud Computing, Data Visualization) <i>Tech: Wix, HTML</i> <ul style="list-style-type: none">Developed an automated dashboard using APIs to track COVID-19 evolution and streamlined the update process for related databases.	<i>Jun 2020</i>
Automation of standardized reports (Category: Data Preparation, Data Visualization) <i>Tech: Visual Basic, Excel</i> <ul style="list-style-type: none">Applied the PageRank principle and macros to streamline calendar management and data tables, reducing working time from 45 minutes to 5 minutes per week for three products.	<i>Apr 2020</i>