# YOSEPH AYALA VALENCIA

Licentiate in Economics - PUCP Surco, Lima, Perú

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## SUMMARY

Licentiate in Economics (First Class Honors) with interest and experience in Applied Microeconometrics, Causal Inference and Machine Learning. High indicators of leadership, research, analytical capacity and teamwork. Purpose of contributing to the country's social policy through scientific research.

#### **EDUCATION**

#### PONTIFICIA UNIVERSIDAD CATÓLICA DEL PERÚ

2016-2021

**B.S & LICENTIATE ECONOMICS** 

• First Class Honors. Full scholarship for academic excellence in high school, Beca 18-Pronabec

#### PONTIFICIA UNIVERSIDAD CATÓLICA DEL PERÚ

2021-2022

SPECIALIZATION IN DATA SCIENCE FOR SOCIAL SCIENCES AND PUBLIC POLICY

Coursework: Intermediate Machine Learning, Advanced Econometrics, Big Data Analytics. Partial scholarship

#### WORK EXPERIENCE

## **COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK**

Dec 2021-Present / Remote

**ECONOMIC AND DATA SCIENCE RESEARCH CONSULTANT** 

- · Working on a randomized controlled trial and a Machine Learning algorithm for reducing corruption
- Research Consultant for Professors Michael Best (Columbia), Jonas Hjort (UCL) and Gaston Pierri (IADB)

#### **PUBLIC MINISTRY OF PERU**

Aug 2021-Dec 2021 / Lima, Peru

**ECONOMIC RESEARCH ASSISTANT** 

- Analysis of different Peruvian (Enaho, Endes, Enapres) and international (Young Lives) databases
- Quantitative evidence for decision-making in public policies

# **ARTIFICIAL INTELLIGENCE AND COMPUTATIONAL METHODS LABORATORY PUCP**Mar 2021-Nov 2021 / Lima, Peru Data Science Research Assistant

- Development of dashboards with R for the incidence of the COVID-19 epidemic in Peru
- Processing and elaboration of panel databases with Stata and R
- Teacher of short training courses (Introduction to Python and Dashboard Creation with R)

#### RESEARCH ASSISTANT FOR MAX PEREZ LEON (PHD YALE)

June 2020-Mar 2021 / Remote

**ECONOMIC AND DATA SCIENCE RESEARCH ASSISTANT** 

- Use of econometric models for causal estimation applied to boundary discontinuity designs
- Programming functions in Python, MATLAB, R and Stata for causal estimation
- Research and programming of machine learning algorithms (Random Forest and Neural Networks) in Python

# **DEPARTMENT OF ECONOMICS - PONTIFICIA UNIVERSIDAD CATÓLICA DEL PERÚ**May 2019-July 2019 / Lima, Peru ECONOMIC RESEARCH ASSISTANT

- Study of the evolution of monetary and multidimensional poverty in Latin America since the 1980s
- Preparation of a database of existing MPIs (Multidimensional Poverty Indices): dimensions and indicators

#### TEACHING EXPERIENCE

## **ADVANCED APPLIED ECONOMETRICS PUCP**

Feb 2022-Mar 2022

**TEACHING ASSISTANT** 

• Topics: diff-in-diff, instrumental variables, synthetic control, regression discontinuity and causal machine learning

### MACHINE LEARNING FOR SOCIAL SCIENCE PUCP

Ian 2022-Feb 2022

**TEACHING ASSISTANT** 

• Topics: linear models (ridge, lasso), nonlinear models (trees, boosting, bootstrap) and deep learning (neural networks)

## **HONORS AND AWARDS**

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LICENTIATE ECONOMICS WITH HONORS	Feb 2022
<ul> <li>Thesis approved unanimously with the outstanding mention</li> </ul>	
AWARD FOR ACADEMIC EXCELLENCE	Aug 2021
• First place in graduating class, 2021	
SCHOLARSHIP FOR ANNUAL HDCA CONFERENCE	July 2020
• Scholarship for Annual Human Development & Capability Association (HDCA) conference 2020	
Undergraduate Scholarship - Beca 18	July 2016

# **PROFESSIONAL DEVELOPMENT**

## **MASTER'S COURSES IN ECONOMICS PUCP**

• Design and Evaluation of Social Policies (2021). First place

• Scholarship for academic excellence in high school

• Advanced Econometrics, Cross Section and Panel (2020). Top 15%

## ARTIFICIAL INTELLIGENCE AND COMPUTATIONAL METHODS LABORATORY PUCP

• Advanced Applied Econometrics for Social Sciences (2020). Full scholarship

## **ADVANCED CODING COURSES**

- Web Scraping In Python: Master The Fundamentals Udemy (2021)
- Publishing Visualizations in R with Shiny and flexdashboard Johns Hopkins University | Coursera (2021)

## SKILLS \_\_

PROGRAMMING LANGUAGES	Experienced: Python (Int)   R (Adv)   Stata (Adv) Familiar: MATLAB   SQL   Git   Linux
FRAMEWORKS & LIBRARIES	Jupyter   Numpy   Pandas   Scikit-learn   Keras   Selenium   Folium   R Shiny
OTHER	GitHub   LTEX   Lyx   R Markdown   Sublime Text
LANGUAGES	Native: Spanish Fluent: English

## **LEADERSHIP ACTIVITIES**

- Coordinator of International Experiences Volunteer 2020 AIESEC Peru
- Training workshop for university leaders 2019 Consortium of universities of Peru. Scholarship

Updated: February 26, 2022