# Joachim Rillo

70 Morningside Dr, New York, NY 10027 • j.rillo@columbia.edu • (646) 229-9244

#### **EDUCATION**

# Columbia University, Columbia College

New York, NY

Bachelor of Arts in Economics-Statistics

May 2024

• **GPA:** 3.96/4.0

• Relevant Coursework: Field Experiments & ML (PhD), Machine Learning, Nonparametric Statistics, Advanced Econometrics, Linear Regression Models, Probability Theory, Statistical Inference, Microeconomics of Development, Resource-Constrained Decision-Making, Multivariable Calculus, Linear Algebra

### RESEARCH EXPERIENCE

# Yale School of Management

New Haven, CT

Predoctoral Fellow to Professor Stefano Giglio & Johannes Stroebel

July 2024 — Present

# **Columbia Department of Economics**

New York, NY

Research Assistant to Professor Daniel Björkegren

Sep 2023 — Present

- Conducted literature review on the potential use of AI in bridging the educational inequality gap in developing countries.
- Developed threat clustering algorithm using GPT API in Python to analyze 50,000+ conversation queries and extract 10,000 threads. <u>Publication with mention at NeurIPS.</u>
- Spearheaded and presented algorithm to calculate OD matrices for local transport authority and World Bank officials to construct transport infrastructure for a commute system in a developing city.

#### **Columbia Business School**

New York, NY

Research Assistant to Professor Aneesh Raghunandan and Shivaram Rajgopal

*May* 2021 – Oct 2021

- Assisted in researching whether the type of media coverage holds firms accountable to create jobs in return for state aid. Publication with mention at the *Review of Accounting Studies*.
- Discovered that certain press releases incentivize compliance with job creation targets and presented findings in a conference of 100+ researchers.

#### **Columbia Economics**

New York, NY

Research Assistant to Professor David Weinstein

January 2021 — May 2021

- Assisted with researching how Japan broke out of the Malthusian Trap through innovation in the 20th century.
- Examined and improved the accuracy of over 1000 patent pages generated by OCR software to quantify the level of historical innovation in historical Japan.

# TEACHING EXPERIENCE

# **Teaching Assistant, Columbia Department of Statistics**

STAT3106: Applied Machine Learning

New York, NY

New York, NY

Spring 2024

*Spring 2023* 

# Help Room Teaching Assistant, Columbia Department of Statistics

<u>Undergraduate courses taught:</u>

STAT1001: Intro to Statistical Reasoning

STAT1101: Intro to Statistics

STAT1201: Calculus-based Intro to Statistics

Graduate courses taught:

STAT4203: Probability Theory STAT4204: Statistical Inference STAT4205: Linear Regression

#### ACADEMIC AWARDS AND HONORS

Cum Laude (Top 25% GPA in Class of 2024)	2024
Dean's List (3.6+ GPA for all eligible semesters)	2020 - 2024
Laidlaw Scholar Grant (1 of 25 first years, \$3000)	2021
Project SWAP, National Geographic Young Explorer's Grant (\$7000)	2020
IASAS Honors for Musical Excellence (Euphonium)	2017 - 2020
Scholastics Art and Writing Regional Gold Key (Asia)	2019
Top UNESCO-affiliated club in the Philippines	2019
Top 5 UNESCO-affiliated club in the Philippines	2016 - 2019

### **SKILLS**

**Programming:** Proficient in R, Stata, Python (pandas, numpy, sci-kitlearn, OpenAI API), LaTeX, Git **Languages:** English (fluent), Spanish (advanced), Tagalog (conversational), Japanese (basic)

### **INDUSTRY EXPERIENCE**

# **Citigroup Sales & Trading**

Manila, PH

Markets Summer Analyst

June 2023 — Aug 2023

- Built an inflation forecasting tool using a SARIMAX time series model in Python to inform future trading strategies; reduced trader forecasting time by 90% and outperformed later forecasts by Citi PHD economists for back-to-back months.
- Developed random forest exchange rate prediction model to identify 3 currency pairs and 2 cyclical factors that affect movements in the USDPHP exchange rate; distributed statistical analysis to Citi USDPHP traders across 4 countries.

Vriens & Partners Manila, PH

Summer Analyst

July 2022 — Sep 2022

- Worked with a healthcare NGO to implement dengue prevention; analyzed national data on 1,488 municipalities and developed a weighted average index to determine 32 key local government units for partnership and implementation.
- Analyzed data on energy supply and demand trends in the Philippines for a renewable energy client across different energy sources; identified untapped opportunities for wind energy and presented findings to 30 consultants in a regional briefer.

Coda.io New York, NY

Growth Fellow

Jan 2022 — May 2022

- Identified key distribution channels for a series D startup integrating documents and spreadsheets into 1 platform; boosted student engagement by 5000+ users, leading to the inclusion of student-targeted documents in featured templates.
- Analyzed survey data on productivity issues among Columbia students and built an automated CRM networking template, Cornell Notes template, and automated task management document; accumulated 10,000+ views and 50+ document copies.

## **LEADERSHIP**

Columbia UNICEF New York, NY

Treasurer and Fundraising Committee Head

Oct 2020 — May 2022

- Managed funds of 3,000 USD for children's rights awareness campaigns and non-profit panels; organized new annual networking events with professionals from leading nonprofits and increased active club membership by over 150%.
- Directed fundraising efforts of a 10-person committee; cumulatively raised over 5,000 USD for UNICEF USA.

# **Sustainable Waste Action Program Project (Project SWAP)**

Manila, PH

Public Relations Executive and Co-Founder

June 2020 – Jan 2021

- Awarded National Geographic Young Explorer Project grant of 7,000 USD to train 19 youth ambassadors across 14 regions in the Philippines in plastic upcycling; helped over 30 communities to implement more sustainable plastic waste habits.
- Forged partnerships with over 15 nonprofit organizations, including Greenpeace Philippines; led to over 75,000 new engagements across Instagram and Facebook and increased follower count by over 3,000 users.

## ADDITIONAL INFORMATION

**Extracurricular activities:** Alpha Kappa Psi Business Fraternity, Columbia UNICEF (previous Treasurer and Fundraising Head), Liga Filipina (previous International Student Representative)

Interests: euphonium, anime, Super Smash Bros Ultimate, reading, type-racer