MARTÍN REYES HOLGUÍN

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EDUCATION

HARVARD UNIVERSITY   Cambridge, MA
A.B, Applied Mathematics to Computer Science | Secondary: Statistics | Citation: Chinese   May 2023
Overall GPA: 3.74/Concentration GPA: 3.96
<u>Relevant Coursework:</u> Machine learning, natural language processing, algorithms and data structures, theory of computation, complex and real analysis, probability and inference, stochastic processes, programming languages.

COLEGIO BOLÍVAR   Cali, Colombia
Bachillerato Colombiano | American High School Diploma   June 2019
Overall GPA: 3.90

WORK EXPERIENCE

CITI   New York, NY
Summer Quantitative Analyst Intern   May 2022 – Present
Will build mathematical and computational models for financial asset management.

HARVARD GROWTH LAB   Cambridge, MA
Research Assistant   February 2021 – Present
Implements recommender systems collaborative filtering models to recommend jobs and products for developing countries to propel their economies. Co-authors a research paper with Dr. Andrés Gómez-Liévano.

VIGILAMOS RH TIERRA MÉXICO   Mexico City, Mexico
Data Science Intern   January 2021 – January 2021
Replicated machine learning models that predict crime in Mexico. Coded a function to generate PDF reports of crime in municipalities and states in Mexico for their webapp.

COLLEGE SCHOLAR   Remote
Cofounder, Senior College Counselor, and Director of Technology   November 2019 – Present
Counsels students from underprivileged backgrounds in Latin America to study in colleges like Harvard, MIT, Stanford, etc. Created Google app scripts to automate processes and developed the webpage and student portal.

ENGAGING EDUCATION   Remote
Content Creation Specialist   November 2019 – December 2020
Programmed chatbots in YAML that teach interactive math lessons and explain math problems for the Lana app.

DEREK BOK CENTER FOR TEACHING AND LEARNING   Cambridge, MA
Learning Lab Undergraduate Fellow   October 2019 – June 2020
Created apps using Cinema 4D, Unity, D3.js for classes at Harvard to make learning more interactive.

SKILLS

<u>Programming languages:</u> Python, R, SQL, OCaml, LaTeX, JavaScript, HTML/CSS, Swift, Java, C
<u>Libraries:</u> Numpy, Pandas, Matplotlib, RShiny, Scikit Learn, PyTorch, TorchText, SciPy, Beautiful Soup, D3JS
<u>Skills:</u> Hypothesis testing, data cleaning, data visualization, data analysis, supervised & unsupervised learning.
<u>Languages:</u> Spanish, English, and French (Fluent); Chinese (Intermediate Proficiency)
<u>Interests</u>**:** Education, Violin, Piano, Guitar, Sustainability, Latin dance, AI for social good, proofs.

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PROJECTS

POMBO EDUCATION

Developed an app that diagnoses educational inefficacies in the classroom. Designed the UI/UX for the application, a predictive model trained on data from 10,000 schools in Colombia, the firebase infrastructure, etc.

QUESTIONS TO ATIS SQL QUERIES

Created a system that parses natural language questions and uses various models including logistic regression, naïve Bayes, rule-based, and seq2seq encoder-decoder models to generate SQL queries for the ATIS data set.

MINI-ML LANGUAGE INTERPRETER

Implemented three interpreters of a subset of the OCaml language, each with a different semantic assumption.

DISCRETE MATH EXPLORABLE EXPLANATIONS

Created RShiny webapps that calculated permutations, operations, conversions, subgroups, and Cayley graphs of different important groups. Created visualizations of Euclid's GCD, Fleury's, Prim's, and Kruskal's algorithms.

CHUSPA APP

Developed iOS app that scans supermarket products and displays eco-footprint from life cycle assessment models.

LEADERSHIP AND TEACHING

HARVARD COMPUTER SCIENCE DEPARTMENT   Cambridge, MA
Computer Science Teaching Fellow   December 2021 – Present
Develops curriculum for the new class, COMPSCI 96: Machine Learning for Social Good. Mentors a team to model the amount of respirable crystalline silica from spectral data for the CDC. Hosts office hours, leads workshops, and grades assignments.

HARVARD MATHEMATICS DEPARTMENT   Cambridge, MA
Mathematics Course Assistant   June 2021 – December 2021
Super CA for the 90-student intensive summer course in multivariable calculus, MATH S-21A. CA for the fall 2021 version of multivariable calculus, MATH 21A. Grades homework and quizzes and leads office hours and sections.

HARVARD COLLEGE CANDELA LATIN DANCE TROUPE   Cambridge, MA
Choreographer and Treasurer   September 2020 – Present
Designed salsa, bachata, and merengue choreographies. Taught social and performance classes to 40+ students. Led team to classify and perform on Harvard Cultural Rhythms 35 and 36. Invited to the UPenn salsa conference.

HARVARD ORGANIZATION FOR LATIN AMERICA   Cambridge, MA
Co-President and Secretary   September 2020 – Present
Invited guest speakers to enlighten us about current events in economics, STEM, and politics related to Latin America. Coordinated a fundraiser to help underprivileged children in Latin America. Organized social events.