MARIA GABRIELA AYALA

Chicago, IL   (872) 818-4653   mariagabrielaa@uchicago.edu

EDUCATION

University of Chicago   Chicago, IL
MSc in Computational Analysis and Public Policy   *June 2023*
- Relevant coursework: Machine Learning, Cloud Computing, Databases, Data Visualization, Web Development, UI/UX, Statistics

Columbia University & Inter-American Development Bank   New York, NY
Executive Program, Macro-Financial Policymaking in Emerging Markets   *April 2019*

London School of Economics and Political Science (LSE)   London, UK
Master in Public Administration (MPA), Merit   *July 2015*

Vassar College   Poughkeepsie, NY
Bachelor of Arts in Economics, Chinese, and Italian (triple major)   *May 2012*
- Omicron Delta Epsilon- International Economics Honor Society

SKILLS

- Software: Python, JavaScript, R, SQL, AWS, React, D3.js, Figma, Tableau, Power BI, Hadoop, Spark Apache, Git, Swift, Kotlin, Flask, Dash, Hadoop, Scikit-learn, PyTorch, HTML, CSS
- Languages: Spanish (Native), English (Fluent), Italian (Advanced), Mandarin (Intermediate), French (Basic)

EXPERIENCE

Department of Computer Science, University of Chicago   Chicago, IL
Graduate Research Assistant - Data Cognition Lab   *July 2022 - June 2023*
- Programmed a D3.js visualization prototype to scale participatory budgeting in Chicago, projected to enhance citizen trust by 30% and citizen participation by 50%
- Reviewed 200+ papers to inform product development on leveraging data visualization to increase citizen engagement

TechTeam, Institute of Politics, University of Chicago   Chicago, IL
Data Scientist   *October 2022 - December 2022*
- Analyzed 10-year datasets from the FBI Hate Crime Statistics and Bureau of Justice Statistics, categorizing instances of violence against individuals with disabilities
- Developed 50+ interactive visualizations using Python Dash for the Department of Homeland Security's Invent2Prevent competition, highlighting violence patterns against individuals with disabilities

Harris School of Public Policy, University of Chicago   Chicago, IL
Graduate Teaching Assistant   *September 2022 - December 2022*
- Graded assignments, held regular office hours, and supervised the forum for the "Statistics for Data Analysis I" course, taken by a cohort of 500 graduate students

Embassy of Mexico to the United States   Chicago, IL
International Trade Data Analyst   *June 2022 - August 2022*
- Developed a user-friendly dashboard with Python to highlight Mexico's workforce and human capital competitive advantages to aid decision-making in the United States-Mexico-Canada Agreement (USCMA) trade negotiations

Behavioral Insights and Parenting Lab, University of Chicago   Chicago, IL
Graduate Research Assistant   *March 2022 - June 2022*
- Performed 30 fieldwork evaluations in 5 Chicago elementary schools with children ages 3-5, collecting and analyzing data for an RCT on the role of technology in early math learning

United Nations Development Programme (UNDP)   Quito, Ecuador
Head of Experimentation   *September 2019 - August 2021*
- Implemented a behavioral intervention which boosted local waste pickers' livelihoods by promoting recycling: achieved a 782% increase in monthly recyclable deliveries (from 51 to 450)
- Led the development of a COVID-19 response platform, enabling citizen collaborations through a geo-referenced system, resulting in 11 partnerships, 34 mapped community needs, and over 9,000 visits
- Devised a behavioral intervention with the IDB and Ecuadorian Institute of Social Security, targeting 300 young informal workers via SMS and email to boost social security enrollment
- Tested an alternative currency scheme in two low-income districts, registering 45 local shops and training 8 youth promoters to stimulate trade exchanges

President's Office, Republic of Ecuador   Quito, Ecuador
Director of Service Delivery and Procedure Simplification   *August 2018 - September 2019*
- Directed a team of 50 civil servants to implement the first data-driven National Registry of Administrative Procedures: 4,200 procedures identified in 123 institutions, digitized and included in a one-stop channel: gob.ec
- Negotiated and advised on 5 IDB missions to structure a $45 million loan operation, fostering Ecuador's competitiveness, regulatory framework, and service-delivery strategy

- Launched the National Award for Service Quality and Excellence and delivered the first service-delivery course, training 1,100 public servants from 11 government agencies

Advisor to the Secretary-General to the President   *March 2018 - August 2018*
- Provided strategic advice on national public policy design, including service delivery, e-government, governance, and open government, leveraging data analytics
- Led the 2018-2021 Public Administration Agenda through an inclusive process, incorporating insights from 193 individuals representing 62 public, private institutions, NGOs, and academia

Cuantix   Quito, Ecuador
Impact Evaluation Consultant   *April 2019 - September 2019*
- Conducted econometric analyses for social programs, leading to a 20% increase in coffee farmers' productivity, a 30% improvement in entrepreneurs' financial literacy, and a 25% decrease in high-risk behaviors among at-risk youth

Ministry of Economic and Social Inclusion   Quito, Ecuador
Process, Service Delivery, and Quality Consultant   *October 2017 - January 2018*
- Executed business process mapping to maximize operational efficiency within the Ministry's social and economic services for the elderly, disabled, and children under three, impacting a $1.5 million budget across 20 departments
- Examined survey data from 500 care facilities serving vulnerable groups to provide UX and service delivery recommendations

National Transit Agency   Quito, Ecuador
Research Coordinator   *August 2017 - October 2017*
- Led a team of 5 multi-disciplinary researchers to conduct quantitative research studies on transport, transit, and road safety, resulting in data-driven insights and evidence-based recommendations
- Created a ground transportation service supply and demand measurement methodology implemented by the Agency, resulting in a 25% improvement in operational efficiency and resource allocation
- Optimized pricing for the Agency's products and services through a costing methodology, leading to a 15% increase in the annual revenue forecast of $68.5 million for 2018

Ministry of Labor, Center for Labor Studies   Quito, Ecuador
Senior Research Analyst   *June 2016 - June 2017*
- Proposed a labor reform based on wage policy research and econometric analysis, presented to the President of the Republic
- Performed big data analytics on over 2 million observations to research the career and wage structure of public health and education professionals, estimating Mincer earnings and comparing wages across sectors
- Collaborated with the ILO to enhance employment forecasting accuracy by 16% through the adaptation of an R-based model for forecasting national employment trends
- Informed the development of Ecuador's first national telecommuting regulation by conducting a cost-benefit analysis using time-use survey data to measure the impact of telecommuting

OECD, Observatory of Public Sector Innovation (OPSI)   London, UK
Capstone Consultant   *October 2014 - March 2015*
- Collaborated with a multidisciplinary team of 6 to design a survey tool to streamline and scale public sector innovations, presented at the OECD headquarters in Paris
- Analyzed quantitative data on the implementation costs and time structures of 6 public sector innovation case studies

Social Impact Consulting   London, UK
Consultant   *January 2014 - March 2014*
- Evaluated SME case studies across multiple regions to assess micro-finance environments, generating actionable recommendations to improve financial access for small businesses in developing countries

BMV Inmobiliaria, Real Estate and Construction Company   Quito, Ecuador
Managing Director Assistant   *March 2013 - August 2013*
- Facilitated access to housing credits for low-income clients in a social-interest housing project through collaboration with the Ecuadorian Ministry of Housing and Urban Development
- Upgraded client and sales database, created process maps for the Operations Department, and prepared financial reports for the company's Board of Directors

Poughkeepsie Journal   Poughkeepsie, NY
Investigative Data Intern   *September 2011 - December 2011*
- Scrutinized use of force incidents in police reports from 500+ law enforcement agencies in New York State, categorizing data into a comprehensive Stata database to aid the Journal's investigative reporting

Columbia University, Columbia Institute for Tele-Information   NYC, NY
Research Assistant   *June 2011 - August 2011*
- Constructed 4 case studies on media pricing strategies for inclusion in the Institute's Media Management textbooks, based on IT management literature and review of global broadband network deployment plans