MARIELA MACHADO FANTACCHIOTTI

New York, NY   ●   **mariela.machado@columbia.edu**

https://www.linkedin.com/in/mariela-machado/

SUMMARY ON QUALIFICATIONS

- Skilled professional with +15 years at the intersection of technology, social impact and sustainable development.
- More than 10 years leading and building remote and diverse teams both in the engineering and development practice sector..
- More than 8 years of experience in partnership management and stakeholder engagement with a proven track record of building and growing relationships with government, big corporations, UN Agencies, global nonprofit organizations, and academic institutions around the world to advance innovation and infrastructure agendas.
- Highly effective at fundraising and building long-term relationships that yielded more than $10M over the past 5 years.
- Lecturer at the School of International and Public Affairs at Columbia University teaching a course on emerging digital technology for impact and advising capstone projects at the intersection of technology and development.
- Significant experience representing the organization's work and mission at international conferences, networking events, and stream media (CNN en Espanol, Foreign Affairs, among others)

EXPERIENCE

IEEE   **New York City, USA**
Senior Director, Humanitarian Engineering Activities   *August 2023 - Present*

- Serves as staff lead for the Humanitarian Technologies Board, supporting strategic vision and objectives, managing operations, budget and deliverables, including metrics of humanitarian technology activity performance.
- Serves as key staff point of contact internally and externally, across IEEE and with volunteers, members, staff, and external organizations to build strong partnerships (both internal and external) and increase the visibility, reach, and effectiveness of the Board's vision for IEEE humanitarian technology activities.
- Leads and guides long-term and short-term humanitarian technology projects that will positively affect the strategic direction of IEEE and its organizational units.
- Guides new programs that aim to expand IEEE's visibility, reach, and entry into new content areas.
- Fosters, develops, maintains and sustains relationships with external organizations including corporations, governments, fellow engineering institutions, multilaterals, educational institutions, NGOs, public and private foundations and other related organizations in new content areas.
- Promotes IEEE and its programs, products and services and serves as a thought leader of this space within the society and beyond.
- Serve as internal stakeholder and executive sponsor of IEEE Humanitarian Technologies Board.
- Leads and manages teams that support the development, operations and evolution of the Humanitarian Technologies programs.

COLUMBIA UNIVERSITY, School of International Affairs & Public Affairs (SIPA)   **New York City, USA**
Lecturer   *Feb 2023 - Present*
- Advised a capstone project for the United Nations Development Programme (UNDP) aimed at providing targeted recommendations for the digital transformation and digital economy of the government of Kosovo.
- Teaches a course called Emerging Digital Technologies for Impact.

Guest lecturer of master class in tech and social impact (Part time)   *Jan 2018 - Dec 2022*
- Designed and delivered a master class to MPA candidates aiming to introduce frameworks and best practices for implementing ICTs to achieve tangible social impact and digital equity.
- Taught the class to +600 MPA candidates since 2018.

Technical advisor for capstones projects (Associate)   *Sept 2015 – October 2018*
- Co-designed and researched the state of the digital infrastructure in Cuba with tangible outcomes in media outlets including Foreign Affairs and CNN en Espanol.
- Advised the technical research aspects for a capstone project serving the World Bank Group around impact assessment and investments on ICTs in Malawi.
- Co-designed and supported the "Offline Internet" independent research project for 2 years as a technical advisor for the following projects:
  - Feasibility study on offline medicine solutions in the Dominican Republic in conjunction with Wikipedia and The Mount Sinai / St. Luke's Global Health Division.
  - Technical needs assessment on offline educational technologies for rural schools in Peru for the Ministry of Education.

NEWLAB   **New York City, USA**
Director of Programs   *Jan 2022 - July 2023*
- Lead and manage the launch of Newlab Uruguay through targeted high level meetings with local technology coalitions to draft the agenda and timeline of the 4 year plan with a public-private investment of +$10M. The coalition involved industry leaders, Uruguayan Government representatives and high level innovation Government representatives.
- Manage and execute the operations of the technological consultancy program which matches deep technology ecosystem research with the innovation needs of corporations aiming to adopt and scale cutting edge technologies into new social impact business verticals. Some partners include 5G for Verizon, Ethical AI for Globant, among others.
- Design and guide +15 simultaneous pilot projects of cutting edge technologies in partnership with corporate innovation departments that involve high level executive teams defining the future of innovation and the macro KPIs to advance corporate/government sustainability goals.
- Ensure the financial sustainability of the Innovation Studios program supporting the closing of 3 new partnerships in LATAM in less than 9 months for a total of 2.5M.
- Support generative research driven by the Product Design team (+20) to understand the technical and market ecosystem through a human centered design approach with the goal of synthesizing the gatherings into actionable insights to shape program focus and drive new strategic approaches for the partners' innovations goals.
- Represent Newlab at industry events, news media (Forbes Uruguay) and other convenings related to relevant trends in frontier technology, startup formation and growth, VC, product design, corporate and government innovation.

COLUMBIA UNIVERSITY, School of International Affairs   **New York City, USA**
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THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)
ENGINEERING FOR CHANGE (E4C)   **New York City, USA**
Senior Program Manager, Engineering Global Development   *June 2021 – Jan 2022*
Program Manager, Engineering Global Development   *Jan 2016 –June 2021*

- Led and managed a team of +136 early career engineers from over 40 countries that completed + 72 reports and ecosystem analysis for more than 80 partners. These reports gathered technical expertise for program implementation recommendations, social impact research and sustainable development considerations that guided technological projects for global organizations that included Huawei Kenya, Autodesk Inc, EPA, World Bank Climate and Innovation Centers, National Renewable Energy Lab, Autodesk Inc, UNHCR, UN Habitat, Norwegian Refugee Council, among others. Examples include ICT Landscape Analysis for Northern Kenya for Huawei Kenya and Digital Identity Ecosystem Analysis for Cash Transfers in East Africa for the Norwegian Refugee Council.
- Identified, built and managed over 100 cross-sectorial partnerships over 6 years including nonprofit, private sector, academia, and public sector that scaled a variety of programs across the organization securing funding that increased revenue growth by 900%.
- Recruited and supervised a team of 5 Program Managers, Research Managers, and Designers that supported the management of multidisciplinary and remote teams with more than +136 early career engineers.

- Supervised the research, evaluation and inclusion of more than 1,500 technological solutions in the Solutions Library through a technical framework developed with the support of a coalition of experts and academics that assess the technical and market feasibility of technology.
- Facilitated over 50 engineering review sessions for ASME's iShow where we supported emerging technological startups in US, LATAM, India and Kenya around implementation strategy, manufacturing optimization, hardware validation & development, and customer/user knowledge.
- Managed successfully +5M budget for a variety of programs that included Impact Projects, Impact Services, E4C Fellowship, ASME's Accelerator program (iShow), among others.
- Built and led a team of experts and multisectoral stakeholders for the Steering Committees that guided the evolution of the programs and defined the impact strategies to achieve SROI for the organization.
- Operationalized the vision and evolution of the organization's Impact Projects program that provided expertise to global organizations at the intersection of technology and social impact bringing at least $500k additional funding each year leading to the award of a 4M grant in 2022.
- Co-designed the engineering services program to support organizations with structured needs assessment, curated expertise matched to needs, interactive training, and impact guidance to scale technological solutions. Some of the clients included the World Bank Climate & Innovation Centers, National Renewable Energy Lab, among others.
- Led the design and execution of the DEI targets for the E4C Fellowship program which included achieving almost 50% of women engineers and 67% minority groups Fellows.
- Served as a technical resource in projects related to digital technologies across the portfolio of programs which included trends and best practices in the sector at large, design considerations and expert identification.

EARTH INSTITUTE / SUSTAINABLE ENGINEERING LAB   **New York City, USA**
Research Assistant   *Feb 2015 – Sept 2015*
- Co-authored a report with Jeffrey Sachs and Ericsson on how ICTs can enable the achievement of the United Nations Sustainable Development Goals (SDGs) related to health, education, financial inclusion, and energy. The report was launched during the **World Economic Forum in 2016** aiming to inform policies in developing countries around digital infrastructure to connect the unconnected.

TELEFONICA   **Caracas, Venezuela**
Technical Project Manager   *June 2012 – May 2014*
- Designed large digital infrastructure projects for mobile network expansion of one of the largest telecommunication companies in the world that impacted the quality of the voice and data/internet services of at least 8 million mobile users in Venezuela.
- Managed over 36 large infrastructure projects from design phase to deployment bringing together various engineering departments and consultants to achieve the companies' annual objectives.
- Launched the innovation hub that brought together the engineering and marketing teams for the creation of new digital products and drive the improvement of the existing technical features.
- Managed the stakeholder meetings between the marketing, engineering, legal, and products team to align on quarterly objectives to advance new ICT products in the Venezuelan market.

Platform Engineer   *Jan 2011 – June 2012*
- Led the installation and rollout of the new TV platform which increased the quality of the service of +400,000 users in Venezuela.
- Executed the design and deployment of IT projects for the upgrade and maintenance of the following platforms; TV platform, IoT services, mobile video streaming and Machine to Machine (M2M) products.
- Led the alignment and definition of technology metrics and KPIs aligned to the overall goals of the company across the different departments involved which included energy, construction, network, CSR, etc.

Project Engineer   *June 2009 –Dec 2010*
- Developed engineering infrastructure feasibility studies through on-site visits that supported the implementation of more than 35 microwaves links to expand and enhance Telefonica's transmission networks.
- Standardized implementation templates and processes that supported the improvement of the implementation time by 30%.

BARCELONA MEDIA   **Barcelona, Spain**
Research Engineer   *Oct 2007 – March 2008*
- Researched artificial intelligence's methods for automatic classification of images and videos as part of the MSc final thesis.
- Coded the automatic classifier for image signals with two different artificial intelligence classification methods; artificial neural networks ((ANNs) and support vector machines.

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EDUCATION

COLUMBIA UNIVERSITY, School of International Affairs   New York, USA
Master of Public Administration, Development Practice   May, 2016

UNIVERSITAT POLITÈCNICA DE CATALUNYA (UPC), Engineering school   Barcelona, Spain
Master of Science in Information and Communications Technologies (ICT)   March, 2008
Telecommunications Engineer

UNIVERSIDAD CATOLICA ANDRES BELLO (UCAB), Engineering school   Caracas, Venezuela
Telecommunications Engineer   January, 2009
Dual degree with UPC whereby the bachelors and masters were awarded in Spain in 2008 and the bachelor's degree in Venezuela was awarded the following year.

PUBLICATIONS, PRESENTATIONS, AND MEDIA

- Publications & Media:
  - Machado, Mariela et al. "The Cuban Internet." Foreign Affairs, 21 July 2022, https://www.foreignaffairs.com/cuba/cuban-internet.
  - Jeffrey Sachs et al. " ICT & SDGs". Earth Institute, May 2016, https://resources.unsdsn.org/ict-sdgs
  - Alvear, Celso. "Engenharias e Outras Práticas Técnicas Engajadas." Academia.edu, Zenodo, 24 Mar. 2022, https://www.academia.edu/74458558/Engenharias_e_outras_pr%C3%A1ticas_t%C3%A9cnicas_engajadas
  - Machado, Mariela. "Applications of Big Data for Development - E4C." Engineering For Change, 26 Aug. 2016, https://www.engineeringforchange.org/news/applications-of-big-data-for-development/.
  - CNN interviews on Engineering for Change and Columbia University's capstone project on digital infrastructure in Cuba

OTHER

- Italian citizen and green card holder permanently authorized to work in the US.
- Lived in 7 countries on 3 continents.
- Comfortable with international travel. Traveled to +60 countries in all continents.