

Alexander Barquero Elizondo, MSc

Personal Information

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Date of Birth
August 3rd, 1985

Current Address
Gainesville, FL, USA
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Education

Ph.D. in Human-Centered Computing, *University of Florida*, August 2021-202X. (in progress)
Master of Computing - Information Systems, *Technological Institute of Costa Rica*, 2009-2011.
Master's in Project Management, *University for International Cooperation, Costa Rica*, 2008-2010.
Bachelor of Computing and Informatics, *University of Costa Rica*, 2003-2006.

Academic Experience

August 2021 – present
University of Florida

- **Graduate Research Assistant**. *RuizLAB* (Advised by **Dr. Jaime Ruiz**).
- Engaged in multiple research-related activities in the field of human-centered computing and bioinformatics.
- Leader of the lab teams for **ENKIX**, as part of the DARPA's PTG grant, and **KARGAMobile**, as part of the NSF real-time surveillance of antimicrobial resistance grant.
- Participant in the 2022 CRA-WP Grad Cohort for IDEALS in San Diego, CA.

March 2015 – July 2021

University of Costa Rica

- **Lecturer**. *Project Management* (School of Computer Science and Informatics, 2020).
- **Lecturer and Lecturer Coordinator**. *Applied ICT I, II, III, and IV* (Archival Sciences, 2015 - 2019).

June 2012 – present

Guest Lecturer

- On digital transformation, information systems, digital signatures, e-Government, cybersecurity, disruptive technologies and project management, among others. (*6 different universities in Costa Rica*).

May 2012 – present

Thesis Committee Member on more than 10 master's and bachelor's graduation projects.

- On e-Government, digital signatures, electronic documents, and document and records management. (*University of Costa Rica, National University of Costa Rica, and Technological Institute of Costa Rica*).

Professional Experience

October 2018 – July 2021

National Archive of Costa Rica - Director-General

- Strategic management of the National Archive, fulfilling objectives and functions required by law and regulation, institutional plans, and citizen needs. Top-level decision-making to ensure the proper and sustainable operation of the organization, the political coordination, the protection of the country's documentary heritage, and effective document management in public institutions.
- Leading the digital transformation process of the National Archives System and the research, design, and development project to create the National Archives Policy 2020-2030.

February 2018 – October 2018

Ministry of Science, Technology and Telecommunications - Director of Digital Governance

- Strategic and technical management of the Digital Governance Directorate, the Departments of e-Government Projects, and the National Computer Security Incident Response Team (CSIRT-CR).
- Led the research and development projects which created the "Digital Transformation Strategy towards the Bicentennial Costa Rica 4.0 2018-2022" and established the new digital governance model for the Government of Costa Rica, per the U.N.'s Sustainable Development Goals.
- Directed the installation of the National CSIRT-CR, through local and international cooperation.

February 2012 – February 2018

Ministry of Science, Technology and Telecommunications - Director of the National Certification Authorities Registrar

- Strategic and technical management of the Digital Certification National System, surpassing its original growth goals by over 1200% in the natural and legal person digital certificates issuing and adoption, increasing and sustaining the development and legal validity of e-Government solutions.
- Led research and development projects that established national regulations for digital certificates.

May 2008 – February 2012

Central Bank of Costa Rica - Senior Analyst Developer (National Payments System)

February 2007 – May 2008

Chiquita Brands International Inc. - Analyst Developer and Webmaster

Selected Publications and Policy Instrument Development	2022	<ul style="list-style-type: none"> Barquero, A. et al (2022). KARGAMobile: Android app for portable, real-time, easily interpretable analysis of antibiotic resistance genes via nanopore sequencing. <i>Frontiers in Bioengineering and Biotechnology</i>, 10. https://www.frontiersin.org/articles/10.3389/fbioe.2022.1016408
	2018	<ul style="list-style-type: none"> Presidential Directive 019-MP-MICITT "Development of the Bicentennial e-Government", Costa Rica. Presidential Executive Order 41248-MP-MICITT-PLAN-MEIC-MC "Creation of the Bicentennial Top-Level e-Government Commission", Costa Rica. Technical Policy "Guidelines for Registration Authorities: Compliance features for Registration Authorities in Costa Rica v1.1", Digital Governance Directorate, Costa Rica.
	2016	<ul style="list-style-type: none"> Alexander Barquero. "The electronic seal: a tool to improve efficiency", a chapter in the book "Metamorphosis 2041 - Towards a Centennial Costa Rican Social Security Fund", Costa Rica.
	2014	<ul style="list-style-type: none"> C. Aguilar, A. Barquero, D. Chavarría, M. Fernández, K. Solano. "Proposal to standardize the format of digitally signed electronic documents", <i>National Archive Magazine</i>, C.R. Presidential Directive 067-MICITT-H-MEIC "Massification of the implementation and use of digital signatures in the Costa Rican public sector", Costa Rica.
	2013	<ul style="list-style-type: none"> Technical Policy "Official file format policy for digitally signed electronic documents", <i>National Certification Authorities Registrar</i>, Costa Rica.
Selected International Talks and Conferences	2020	<ul style="list-style-type: none"> School of Archival Sciences. "Digital transformation trends for document management projects". Lima, Perú. 5th Interdisciplinary Seminar on Archives. "The importance of digital & open archives for society". Santiago, Chile. 11th Intl. Sem. on Archives of Iberian Tradition. "Digital transformation: challenges & opportunities". Seville, Spain.
	2019	<ul style="list-style-type: none"> International Council on Archives Congress' Designing the Archives'. "A nationwide iterative approach to digital preservation in developing countries". Adelaide, Australia.
	2015	<ul style="list-style-type: none"> SCALA Digital-Tour 2015. "Digital Certification Authorities Latin American Association". Brasilia, Brasil.
	2017	<ul style="list-style-type: none"> Informatics Leadership Merit Award for outstanding work towards nationwide digital signature adoption. <i>Computing and Informatics Professional Association, Costa Rica</i>.
	2014	<ul style="list-style-type: none"> National Award "José Luis Coto Conde" for the best archival science research work. <i>Administrative Board of the National Archive, Costa Rica</i>.
Selected Continuing Education	2015	<ul style="list-style-type: none"> ICT Policy Expert Course <i>Ministry of Science, ICT & Future Planning, Republic of Korea</i>.
	2014	<ul style="list-style-type: none"> ICT Integrated Course: Information Security <i>Ministry of Sc., ICT & F.P., Republic of Korea</i>.
Board and Committee Experience	2020 – July 2021	<ul style="list-style-type: none"> Vice-President, Latin American Archives Association (ALA). Director, Board of Directors of the Ibero-American General Secretariat's Iberarchives Program.
	2018 – July 2021	<ul style="list-style-type: none"> Executive Director, Administrative Board of the National Archive. Member, National Commission of Historical Commemorations. Member, UNESCO's Memory of the World National Committee. Member, Editorial Committee of the National Archive.
	2018	<ul style="list-style-type: none"> President, e-Government Interinstitutional Group. President, National Cybersecurity Consultative Council.
	2014 – 2018	<ul style="list-style-type: none"> Member, Apostille Commission of the Ministry of Foreign Affairs. Member, e-Government Interinstitutional Network. Member, National e-Health Commission.
	2012 – 2018	<ul style="list-style-type: none"> President, National Certification Authority Policy Advisory Board.