Esteban Carisimo

📱 (872)-806-8892 | ✉ estcarisimo@gmail.com | 🏠 estcarisimo.github.io | ⌂ estcarisimo

Education

Universidad de Buenos Aires   *Buenos Aires, Argentina*
Doctor of Engineering   *Apr 2015 - Apr 2020*
- Advisor: J.I. Alvarez-Hamelin (UBA); Co-Advisor: Amogh Dhamdhere (UC San Diego)
- Dissertation: *Internet tomography: Traffic measurement and its relationship with topology*
- Summa Cumme Laude

Universidad de Buenos Aires   *Buenos Aires, Argentina*
Engineering Degree in Electronics   *Mar 2009 - Dec 2014*
- GPA: 3.60 (8.15/10)
- Diploma de Honor *(Honor for outstanding GPA)*
- Dissertation: *Network tomography: Measurements on an Internet Exchange Point*

Appointments

Department of Computer Science, Northwestern University   *Evanston, IL, USA*
Postdoctoral Fellow   *Apr 2021 - Present*
- Main Research: NSF-funded project on Criticality of the Submarine Cable Network (CNS-2107392-002)
- Instructor of CS340 - Introduction to Computer Networking
- Mentor: Fabian E. Bustamante

Department of Computer Science, School of Engineering, Universidad de Buenos Aires   *Buenos Aires, Argentina*
Adjunct Professor   *Aug 2019 - Apr 2021*
- Tenured Teaching Appointment
- Instructor of 75.43 - Introduction to Distributed Systems

Department of Computer Science, School of Engineering, Universidad de Buenos Aires   *Buenos Aires, Argentina*
Head of Teaching Assistants   *Mar 2017 - Jul 2019*

CONICET   *Buenos Aires, Argentina*
Doctoral Fellow   *Apr 2015 - Apr 2020*
- Research Topics
    - Developed mathematical models for Internet latency
    - Conducted graph-theoretical analyses to identify emerging Content Providers
    - Characterized network infrastructure of Latin American IXPs
- Mentor: J.I. Alvarez-Hamelin

CAIDA, San Diego Supercomputer Center, UC San Diego   *La Jolla, CA, USA*
Visiting Graduate Student   *Oct 2017 - Apr 2018*
- Researched automatic detection of persistent congestion in the Internet.
- Mentor: Amogh Dhamdhere

Awards

2022	**Best Dataset Award**, *Quantifying Nations' Exposure to Traffic Observation and Selective Tampering*. Passive and Active Measurement (PAM) Conference	*Virtual Event*

Publications

Journal Articles (3)

Network topology facilitates internet traffic control in autocracies
Eda Keremoğlu, Nils B Weidmann, Alexander Gamero-Garrido, **Esteban Carisimo**, Alberto Dainotti, Alex C Snoeren
PNAS Nexus pgae069. 2024

A First Look at the Latin American IXPs
Esteban Carisimo, Julián M. Del Fiore, Diego Dujovne, Cristel Pelsser, J. Ignacio Alvarez-Hamelin
SIGCOMM Comput. Commun. Rev. pp. 18–24. Association for Computing Machinery, 2020

Studying the evolution of content providers in IPv4 and IPv6 internet cores
Esteban Carisimo, Carlos Selmo, J. Ignacio Alvarez-Hamelin, Amogh Dhamdhere
Computer Communications pp. 54–65. 2019

Conference Proceedings (8)

A hop away from everywhere: A view of the intercontinental long-haul infrastructure
Esteban Carisimo, Caleb J. Wang, Mia Weaver, Paul Barford, Fabián E. Bustamante
Proc. ACM Meas. Anal. Comput. Syst. 2024

as2org+: Enriching AS-to-Organization Mappings with PeeringDB
Augusto Arturi, **Esteban Carisimo**, Fabián E. Bustamante
Passive and Active Measurement, 2023, Cham

Destination Unreachable: Characterizing Internet Outages and Shutdowns
Zachary Bischof, Kennedy Pitcher, **Esteban Carisimo**, Amanda Meng, Rafaek Nunes, Ramakrishna Padmanabhan, Margaret E. Roberts, Alex C. Snoeren, Alberto Dainotti
ACM SIGCOMM, 2023

Jitterbug: A new framework for jitter-based congestion inference
Esteban Carisimo, Ricky K. P. Mok, David D. Clark, Kc Claffy
Passive and Active Measurement, 2022, Cham

Quantifying Nations' Exposure to Traffic Observation and Selective Tampering
Alexander Gamero-Garrido, **Esteban Carisimo**, Shuai Hao, Bradley Huffaker, Alex C. Snoeren, Alberto Dainotti
Passive and Active Measurement, 2022, Cham

Identifying ASes of State-Owned Internet Operators
Esteban Carisimo, Alexander Gamero-Garrido, Alex C. Snoeren, Alberto Dainotti
ACM Internet Measurement Conference (IMC), 2021, New York, NY, USA

Studying the Evolution of Content Providers in the Internet Core
Esteban Carisimo, Carlos Selmo, J. Ignacio Alvarez-Hamelin, Amogh Dhamdhere
Network Traffic Measurement and Analysis Conference (TMA), 2018

Hidden Internet Topologies Info: Truth or Myth?
Sofía Silva Berenguer, **Esteban Carisimo**, J. Ignacio Alvarez-Hamelin, Francisco Valera Pintor
Workshop on Fostering Latin-American Research in Data Communication Networks, 2016, Florianopolis, Brazil

Software, Systems and Datasets

Systems

Splash   `splash.aqualab.cs.northwestern.edu`

Tools

Jitterbug   Network Congestion Inference tool `https://www.github.com/estcarisimo/jitterbug`
as2org+   AS-to-Organizations mapping tool `https://github.com/NU-AquaLab/as2orgplus`

Dataset

State-Owned ASes   List of ASes of State-Owned Internet Providers `https://www.github.com/estcarisimo/state-owned-ases`

Conference Attendance

Scientific Conferences

2024	**PAM**, Passive and Active Measurement Conference	*Virtual Event*
2023	**TAPIA**, CMD-IT/ACM TAPIA	*Dallas, TX, USA*
2023	**SIGCOMM**, ACM SIGCOMM	*New York, NY, USA*
2023	**PAM**, Passive and Active Measurement Conference	*Virtual Event*
2022	**PAM**, Passive and Active Measurement Conference	*Virtual Event*
2021	**IMC**, ACM SIGCOMM Internet Measurement Conference	*Virtual Event*
2020	**IMC**, ACM SIGCOMM Internet Measurement Conference	*Virtual Event*
2019	**TMA**, IFIP Network Traffic Measurement Analysis Conference	*Paris, France*
2018	**TMA**, IFIP Network Traffic Measurement Analysis Conference	*Vienna, Austria*
2017	**SIGCOMM**, ACM SIGCOMM	*LA, CA, USA.*
2017	**TMA**, IFIP Network Traffic Measurement Analysis Conference	*Dublin, Ireland*
2016	**IMC**, ACM SIGCOMM Internet Measurement Conference	*LA, CA, USA*
2017	**SIGCOMM**, ACM SIGCOMM	*Florianopolis, Brazil*
2016	**TMA**, IFIP Network Traffic Measurement Analysis Conference	*Louvain, Belgium*

NSF Workshops

| 2023 | **SURVIVABILITY,** Towards Re-architecting Today's Internet for Survivability | *Evanston, IL, USA* |
| 2021 | **WOMBIR,** Overcoming Measurement Barriers to Internet Research | *Virtual Event* |

Industry and other non-academic Meetings

2018	**LACNOG,** LACNIC30-LACNOG2018	*Rosario, AR*
2018	**LACIGF,** Latin American and Caribbean Internet Governance Forum	*Buenos Aires, AR*
2017	**LACNOG,** LACNIC28-LACNOG2017	*Montevideo, UY*
2015	**ICANN,** ICANN53	*Buenos Aires, AR*

Talks

2023	**AIMS-IYP UCSD,** Unexpected Peering Connections to the Cloud: Going the distance when you dont have to	*La Jolla, CA, USA*
2023	**UWisc,** Unexpected Peering Connections to the Cloud: Going the distance when you dont have to	*Madison, WI, USA*
2023	**PAM,** as2org+: Enriching AS-to-Organization Mappings with PeeringDB	*Virtual Event*
2022	**PAM,** Jitterbug: A new framework for jitter-based congestion inference	*Virtual Event*
2021	**IMC,** Identifying ASes of State-Owned Internet Operators	*Virtual Event*
2018	**LACNOG,** Studying the Evolution of Content Providers in the Internet Core	*Rosario, Argentina*
2018	**TMA,** Studying the Evolution of Content Providers in the Internet Core	*Vienna, Austria*

Press and Broader Impact

| 2024 | **APNIC Blog,** (Invited) A hop away from everywhere long-haul links in today's Internet |
| 2022 | **APNIC Blog,** (Invited) Identifying Autonomous Systems of state-owned Internet operators |

Teaching

CS340 - Introduction to Computer Networking
Northwestern University

Instructor
Jan 2022 - Present

- Quarters: Fall 2023, Fall 2022, Winter 2022
- Website: `https://northwestern-cs340.github.io/`

75.43 - Introduction to Distributed Systems
Universidad de Buenos Aires

Instructor
Jul 2019 - Apr 2021

- Semesters: S2-2020, S1-2020, S2-2019
- Equivalent to Northwestern's CS340 - Introduction to Computer Networking

75.43 - Introduction to Distributed Systems
Universidad de Buenos Aires

Head of Teaching Assistants
Mar 2017 - Jul 2019

- Semesters: S1-2019, S2-2018, S1-2018, S1-2017
- Equivalent to Northwestern's CS340 - Introduction to Computer Networking

Service

Department Service

Latin CS
Northwestern University

Faculty Advisor
Jan 2023 - Jun 2023

- Student organization for self-identified as Latin American/ Latinx / Hispanic.
- Temporary invited to represent the faculty in mentoring the organization.

Admission Committee for the PhD in Computer Science
Northwestern University

Committee Member
Jan 2022 - Jan 2023

- Representing the System and Networking area.

Curriculum Committee of the CSE Undergraduate Program
Universidad de Buenos Aires

Faculty Representative
Jun 2019 - Apr 2021

- Co-governed board composed of faculty (3), graduate (2), and student (1) members

Conference Committees and Journal Reviews

General Chair

- PAM 2024

Program Committee Member
- 2024: IMC, TMA
- 2023: IMC, PAM
- 2022: PAM, IMC (Only Poster Session)

External Reviewer
- ACM/IEEE Transaction on Netwoking (ToN)
- ACM SIGCOMM Computer Communications Review (CCR)

Mentoring

MASTER STUDENTS OR EQUIVALENT

1. **Santiago Klein**. Advisor. Universidad de Buenos Aires. *Jan 2023 - Sep 2023*
2. **Nicolas Aguerre**. Advisor. Universidad de Buenos Aires. *Jan 2023 - Sep 2023*
3. **Raghul Ravi**. Advisor. Northwestern University. *Sep 2022 - Jun 2023*
4. **Aman Khalid**. Advisor. Northwestern University. *Jun 2022 - Dec 2022*
5. **Cecilia Hortas**. Advisor. Universidad de Buenos Aires. *Sep 2021 - Dec 2022*
6. **Camila Bojman**. Advisor. Universidad de Buenos Aires. *Sep 2021 - Dec 2022*
7. **Manuel Ruiz Echazu**. Advisor. Universidad de Buenos Aires. *Sep 2021 - Aug 2022*
8. **Tomas Botalla**. Advisor. Universidad de Buenos Aires. *Sep 2021 - Aug 2022*
9. **Augusto Arturi**. Advisor. Universidad de Buenos Aires. *Sep 2020 - Aug 2021*
10. **Rodrigo Zapico**. Advisor. Universidad de Buenos Aires. *Sep 2020 - Jun 2021*
11. **Martín Errázquin**. Advisor. Universidad de Buenos Aires. *Sep 2020 - Jun 2021*
12. **Sofía Morseletto**. Advisor. Universidad de Buenos Aires (joint w University of Luxembourg). *Jan 2019 - Apr 2020*

Languages

English Proficient
Spanish Native
Italian Intermediate proficiency

References available upon request.