Esteban Carisimo

✉ 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*
- 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*
- 75.43 - Introduction to Distributed Systems

CONICET *Buenos Aires, Argentina*
Doctoral Fellow *Apr 2015 - Apr 2020*
- 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

[J3] 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

[J2] 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. 2020

[J1] 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

[C9] Ten years of the Venezuelan crisis - An Internet perspective
Esteban Carisimo, Rashna Kumar, Caleb J. Wang, Santiago Klein, Fabián E. Bustamante
ACM SIGCOMM, 2024

[C8] 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

[C7] as2org+: Enriching AS-to-Organization Mappings with PeeringDB.
Augusto Arturi, **Esteban Carisimo**, Fabián E. Bustamante
Passive and Active Measurement, 2023, Cham

[C6] 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

[C5] 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

[C4] 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

[C3] 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

[C2] 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

[C1] 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, New York, NY, USA

Extended Abstracts and Posters (with Proceedings)

[P3] 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
Abstracts of ACM SIGMETRICS/IFIP PERFORMANCE, 2024

[P2] Beyond Proximity: Exploring Remote Cloud Peering
Esteban Carisimo, Mia Weaver, Paul Barford, Fabián E. Bustamante
Proc. of SIGCOMM Posters, 2024

[P1] Revealing Hidden Secrets: Decoding DNS PTR records with Large Language Models
Kedar Thiagarajan, **Esteban Carisimo**, Fabián E. Bustamante
Proc. of SIGCOMM Posters, 2024

Software, Systems and Datasets

Systems

Splash Submarine Cable Failure Detection `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`

Talks

[T10] A hop away from everywhere: A view of the intercontinental long-haul infrastructure.
Esteban Carisimo
, 2024, AIMS-IYP UCSD, La Jolla, CA, USA

[T9] A hop away from everywhere: A view of the intercontinental long-haul infrastructure.
Esteban Carisimo
, 2024, SIGMETRICS, Venice, Italy

[T8] El Dilema Digital de los Gobiernos: Entre Autonomia y Tercerizacion
Esteban Carisimo
2024, Universidad de San Andres, San Fernando, Buenos Aires, Argentina

[T7] as2org+: Enriching AS-to-Organization Mappings with PeeringDB
Esteban Carisimo
2023, PAM, Virtual Event

[T6] Unexpected Peering Connections to the Cloud: Going the distance when you don't have to
Esteban Carisimo

2023, AIMS-IYP UCSD, La Jolla, CA, USA

[T5]   Unexpected Peering Connections to the Cloud: Going the distance when you don't have to
         Esteban Carisimo
         2023, University of Wisconsin-Madison, Madison, WI, USA

[T4]   Jitterbug: A new framework for jitter-based congestion inference
         Esteban Carisimo
         2022, PAM, Virtual Event

[T3]   Identifying ASes of State-Owned Internet Operators
         Esteban Carisimo
         2021, IMC, Virtual Event

[T2]   Studying the Evolution of Content Providers in the Internet Core
         Esteban Carisimo
         2018, LACNOG, Rosario, Argentina

[T1]   Studying the Evolution of Content Providers in the Internet Core
         Esteban Carisimo
         2018, TMA, 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 2024 (Enrollment: 80, CTEC:)
  - Fall 2023 (Enrollment: 78, CTEC: 5.04/ 6.00)
  - Fall 2022 (Enrollment: 67, CTEC: 4.83/ 6.00)
  - Winter 2022 (Enrollment: 134, CTEC: 4.20 / 6.00)
- 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

- 2025: PAM
- 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. **Mauricio Buzzone**. Advisor. Universidad de Buenos Aires. *Oct 2023 - Present*
2. **Lukas De Angelis Riva**. Advisor. Universidad de Buenos Aires. *Oct 2023 - Present*
3. **Santiago Klein**. Advisor. Universidad de Buenos Aires. *Jan 2023 - Sep 2023*
4. **Nicolas Aguerre**. Advisor. Universidad de Buenos Aires. *Jan 2023 - Sep 2023*
5. **Raghul Ravi**. Advisor. Northwestern University. *Sep 2022 - Jun 2023*
6. **Aman Khalid**. Advisor. Northwestern University. *Jun 2022 - Dec 2022*
7. **Cecilia Hortas**. Advisor. Universidad de Buenos Aires. *Sep 2021 - Dec 2022*
8. **Camila Bojman**. Advisor. Universidad de Buenos Aires. *Sep 2021 - Dec 2022*
9. **Manuel Ruiz Echazu**. Advisor. Universidad de Buenos Aires. *Sep 2021 - Aug 2022*
10. **Tomas Botalla**. Advisor. Universidad de Buenos Aires. *Sep 2021 - Aug 2022*
11. **Augusto Arturi**. Advisor. Universidad de Buenos Aires. *Sep 2020 - Aug 2021*
12. **Rodrigo Zapico**. Advisor. Universidad de Buenos Aires. *Sep 2020 - Jun 2021*
13. **Martín Errázquin**. Advisor. Universidad de Buenos Aires. *Sep 2020 - Jun 2021*
14. **Sofía Morseletto**. Advisor. Universidad de Buenos Aires (joint w University of Luxembourg). *Jan 2019 - Apr 2020*

Languages

English	Proficient
Spanish	Native
Italian	Fluent

References available upon request.