# Alexander Gamero-Garrido

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Research Interests: Computer Networks, Policy, Privacy,

**Internet Measurement** 

University of California Davis Computer Science Davis, CA 95616

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### Education

### 2021 **Ph.D. in Computer Science**

University of California San Diego

Transit Influence of Autonomous Systems: Country-Specific Exposure of Internet Traffic,

Alex C. Snoeren and Alberto Dainotti (CAIDA), advisors

### 2015 M.Sc. in Technology and Policy

Massachusetts Institute of Technology

Thesis at the Computer Science and Artificial Intelligence Laboratory

### 2011 **B.Eng. in Electronics Engineering,** awarded *cum laude* & *exceptional thesis*

University Simón Bolívar, Venezuela

Exchange studies & thesis at Lund University, Sweden

## **Professional Experience**

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University of California Davis

### 2021 – 2023 Ford Foundation & Future Faculty Fellow

Northeastern University, David Choffnes, mentor

#### 2018 - 2019 Research Intern, Security Software Engineering

Akamai Technologies

Cambridge, Massachusetts, and San Francisco, California

### 2014 **Cybersecurity Intern**

United Nations, International Telecommunication Union

Geneva, Switzerland

### Awards & Honors

### 2023 CAMPOS Faculty Scholar

California State Assembly & University of California, Davis

#### **IMC Best Paper Award**

**ACM SIGCOMM Internet Measurement Conference** 

Awarded for "Tracking, Profiling, and Ad Targeting in the Alexa Echo Smart Speaker Ecosystem"

### 2022 Ford Foundation Postdoctoral Fellowship

National Academies of Sciences, Engineering and Medicine

#### **PAM Best Dataset Paper Award**

Passive and Active Measurement Conference

Awarded for "Quantifying Nations' Exposure to Traffic Observation and Selective Tampering"

### 2021 Future Faculty Fellowship

Northeastern University

#### 2019 Microsoft Research Dissertation Grant

Microsoft Research

### 2018 SIGCOMM Best Paper Award

ACM Special Interest Group on Data Communications

Awarded for "Inferring Persistent Interdomain Congestion"

### **Publications**

### Refereed Papers

### 2023 Network Topology Facilitates Internet Traffic Control in Autocracies

Eda Keremoğlu, Nils B. Weidmann, <u>Alexander Gamero-Garrido</u>, Esteban Carisimo, Alberto Dainotti, and Alex C. Snoeren

Proceedings of the National Academy of Sciences Nexus (PNAS Nexus)

### Tracking, Profiling, and Ad Targeting in the Alexa Echo Smart Speaker Ecosystem

Umar Iqbal, Pouneh Nikkhah Bahrami, Rahmadi Trimananda, Hao Cui, <u>Alexander Gamero-Garrido</u>, Daniel J. Dubois, David Choffnes, Athina Markopoulou, Franziska Roesner, Zubair Shafiq

ACM SIGCOMM Internet Measurement Conference (IMC)

| Best Paper Award |

#### 2022 Quantifying Nations' Exposure to Traffic Observation and Selective Tampering

<u>Alexander Gamero-Garrido</u>, Esteban Carisimo, Shuai Hao, Bradley Huffaker, Alex C. Snoeren, Alberto Dainotti

Passive and Active Measurement Conference (PAM)

| Best Dataset Paper Award |

#### 2021 Identifying ASes of State-Owned Internet Operators

Esteban Carisimo, <u>Alexander Gamero-Garrido</u>, Alex C. Snoeren, Alberto Dainotti *ACM SIGCOMM Internet Measurement Conference (IMC)* 

# 2018 Inferring Persistent Interdomain Congestion

Amogh Dhamdhere, David D. Clark, <u>Alexander Gamero-Garrido</u>, Matthew Luckie, Ricky K. P. Mok, Gautam Akiwate, Kabir Gogia, Vaibhav Bajpai, Alex C. Snoeren, kc claffy *ACM Special Interest Group on Data Communications (SIGCOMM)* 

Best Paper Award

### 2017 Quantifying the Pressure of Legal Risks on Third-party Vulnerability Research

<u>Alexander Gamero-Garrido</u>, Stefan Savage, Kirill Levchenko, and Alex C. Snoeren *ACM SIGSAC Conference on Computer and Communications Security (CCS)* 

2015 Characterizing Performance of Residential Internet Connections Using an Analysis of

Measuring Broadband America's Web Browsing Test Data

Alexander Gamero-Garrido

Telecommunications Policy Research Conference (TPRC)

#### **Pre-Prints**

#### 2024 Empirically Measuring Data Localization in the EU

<u>Alexander Gamero-Garrido</u>, Kicho Yu, Sumukh Vasisht Shankar, Sindhya Balasubramanian, Alexander Wilcox, and David Choffnes

Privacy Enhancing Technologies Symposium (PETS), planned submission in May 2024

#### **Posters**

### 2022 Using Reverse IP Geolocation to Identify Institutional Networks

Alexander Gamero-Garrido, Elizabeth Belding, David Choffnes

ACM Internet Measurement Conference

### 2022 Assessing the GDPR's Effectiveness in Preventing Privacy Infringements from

**Cross-Border Data Transfers** 

Alexander Gamero-Garrido, Kicho Yu, Sumukh Vasisht Shankar, Sindhya Balasubramanian,

Alexander Wilcox, and David Choffnes ProperData Symposium, UC Irvine

#### 2016 Supporting Peer Instruction with Evidence-Based Online Instructional Templates

Tricia J. Ngoon, Alexander Gamero-Garrido, Scott Klemmer

ACM Conference on Learning at Scale

#### Grants

### 2023 Internet Measurements to Empirically Characterize U.S. Broadband

David Choffnes (PI), Alexander Gamero-Garrido (Co-PI)

Comcast Innovation Fund, \$85,000

# Submitted Measurement, Modeling and Analysis to Assess Network Connectivity and Performance at Anchor Institutions

David Choffnes (PI), <u>Alexander Gamero-Garrido</u> (Co-PI), Elizabeth Belding (Co-PI) National Science Foundation, Networking Technology and Systems (NeTS), \$1,200,000

### **Invited Talks**

March, 2024

# Interactions Between the Internet & Public Policy: Impacts on Security, Privacy & Resilience

University of California Davis

Brown University University of Utah Columbia University

Georgia Institute of Technology

#### 2023 The Internet in the Global South: Security, Resilience & Policy

Cybersecurity Summer Institute, Georgia Institute of Technology

### 2023 Effectiveness of the GDPR in Preventing Privacy Infringements from Cross-Border Data

**Transfers** 

**Tufts University** 

### 2022 Assessing the State of the Digital Divide with Internet Measurements

National Academies of Sciences, Engineering and Medicine

#### 2022 Identifying ASes of State-Owned Internet Operators

Georgia Institute of Technology

### 2020 – 2022 Country-Level Transit Influence of Autonomous Systems

University of California Santa Barbara University of Southern California

New York University Columbia University Microsoft Research

Georgia Institute of Technology

Northeastern University

### 2020 Autonomous Systems as Topological Ports of Entry in Latin America (Spanish)

Latin American and Caribbean Network Operators' Group (LACNOG)

# Selected Media Coverage

#### 2023 Quantifying Nations' Exposure to Traffic Observation and Selective Tampering

Financial Times, EurekAlert! (AAAS), UC San Diego News, TrustMyScience (France), peoples dispatch (India)

# 2022 Your Echoes are Heard: Tracking, Profiling, and Ad Targeting in the Amazon Smart Speaker Ecosystem

Chicago Tribune, The Verge, The Register (UK), la Reppublica (Italy), Axios Seattle, msn.com

### 2018 Inferring Persistent Interdomain Congestion

The Register (UK)

# Teaching

2019 – 2021 Instructional Assistant

Undergraduate: Computer Networks (two terms), Networked Systems

Graduate: Computer Networks, Interaction Design Research

University of California San Diego

2007 **Teaching Assistant** 

Undergraduate: Electric Circuits (two terms)

University Simón Bolívar, Venezuela

### Service

### **Proposal Review**

2023 NSF Proposal Review Panel

### **Program Committees**

2022 – 2023 ACM Internet Measurement Conference (IMC)

2022 Passive and Active Measurement Conference (PAM)

### External Reviewer

2019, 2022 ACM SIGCOMM Computer Communication Review (CCR)

2019 Performance Evaluation (PEVA)

### Student Research Advising

#### Northeastern University M.Sc.

2022 – Pres. Kicho Yu  $\rightarrow$  University of Southern California Ph.D.

 $Sumukh\ Vasisht\ Shankar \rightarrow Walmart\ (Intern) \rightarrow Yale\ University\ (Research\ Data\ Scientist)$ 

Sindhya Balasubramanian → Tesla (Intern) → Tesla (Data Analyst)

Alexander Wilcox

Northeastern University B.Sc.

2021 - 2022 Britney (Ise) Okhiria

University of California San Diego B.Sc.

2018 – 2019 Nikhil Pothuru  $\rightarrow$  Georgia Institute of Technology M.Sc.

2017 – 2018 Kabir Gogia → Facebook

2016 Kean Freeman

### Leadership

2023	<b>Invited Participant at NSF Workshop</b> on Bridging the Divide, University of California Berkeley

2023 Panelist at Reach(OUT) LGBTQA+ Career Conference, Northeastern University

2022 – 2023 Cultural and Spritual Life Staff Affiliate, LGBTQA Resource Center, Northeastern University

Alexander Gamero-Garrido – Curriculum Vitae	
Pride in STEM Interview, IEEE Computer Society	
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2021	Internet Measurement Conference "Pod" Organizer, Boston, Northeastern University
2017 – 2018	Publicity Manager, Graduate Women in Computing, University of California San Diego
2017	UC San Diego M.Sc. & Ph.D. Recruiter, Grace Hopper Celebration of Women in Computing
2014 – 2015	Co-President, Technology Policy Student Society, Massachusetts Institute of Technology
2011	Young Iberoamerican Leader, Carolina Foundation, Spain
2011	Student Commencement Speaker, University Simón Bolívar, Venezuela

# Languages

March, 2024

2022

**English**, Bilingual Proficiency **Spanish**, Bilingual Proficiency **Italian**, Advanced Proficiency