

Selected publications

- [1] Xi Jiang, Shinan Liu, Aaron Gember-Jacobson, Arjun Nitin Bhagoji, Paul Schmitt, Francesco Bronzino, and Nick Feamster. “NetDiffusion: Network Data Augmentation Through Protocol-Constrained Traffic Generation”. In: *Proceedings of the ACM on Measurement and Analysis of Computing Systems* (2024).
- [2] Shinan Liu, Francesco Bronzino, Paul Schmitt, Arjun Nitin Bhagoji, Nick Feamster, Hector Garcia Crespo, Timothy Coyle, and Brian Ward. “LEAF: Navigating Concept Drift in Cellular Networks”. In: *Proceedings of the ACM on Networking* (2023).
- [3] Francesco Bronzino, Paul Schmitt, Sara Ayoubi, Hyojoon Kim, Renata Teixeira, and Nick Feamster. “Traffic Refinery: Cost-Aware Data Representation for Machine Learning on Network Traffic”. In: *Proceedings of the ACM on Measurement and Analysis of Computing Systems* (2021).
- [4] Francesco Bronzino, Sumit Maheshwari, Ivan Seskar, and Dipankar Raychaudhuri. “NOVN: A named-object based virtual network architecture to support advanced mobile edge computing services”. In: *Elsevier Pervasive and Mobile Computing* (2020).
- [5] Francesco Bronzino, Paul Schmitt, Sara Ayoubi, Guilherme Martins, Renata Teixeira, and Nick Feamster. “Inferring Streaming Video Quality from Encrypted Traffic: Practical Models and Deployment Experience”. In: *Proceedings of the ACM on Measurement and Analysis of Computing Systems* (2019).
- [6] Sumit Maheshwari, Dipankar Raychaudhuri, Ivan Seskar, and Francesco Bronzino. “Scalability and Performance Evaluation of Edge Cloud Systems for Latency Constrained Applications”. In: *IEEE/ACM Symposium on Edge Computing (SEC)*. 2018.

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- [9] Sean Flynn, Francesco Bronzino, and Paul Schmitt. “Internet Localization of Multi-Party Relay Users: Inherent Friction Between Internet Services and User Privacy”. In: *arXiv preprint arXiv:2307.04009* (2023).
- [10] Xi Jiang, Shinan Liu, Saloua Naama, Francesco Bronzino, Paul Schmitt, and Nick Feamster. “AC-DC: Adaptive Ensemble Classification for Network Traffic Identification”. In: *arXiv preprint arXiv:2302.11718* (2023).

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- [11] Razanne Abu-Aisheh, Francesco Bronzino, Lou Salaiin, and Thomas Watteyne. “CARA: Connectivity-Aware Relay Algorithm for Multi-Robot Expeditions”. In: *MDPI Sensors* (2022).
- [4] Francesco Bronzino, Sumit Maheshwari, Ivan Seskar, and Dipankar Raychaudhuri. “NOVN: A named-object based virtual network architecture to support advanced mobile edge computing services”. In: *Elsevier Pervasive and Mobile Computing* (2020).

Conferences

- [1] Xi Jiang, Shinan Liu, Aaron Gember-Jacobson, Arjun Nitin Bhagoji, Paul Schmitt, Francesco Bronzino, and Nick Feamster. “NetDiffusion: Network Data Augmentation Through Protocol-Constrained Traffic Generation”. In: *Proceedings of the ACM on Measurement and Analysis of Computing Systems* (2024).
- [12] Mathieu Guglielmino, Francesco Bronzino, and Sébastien Monnet. “Outil interactif pour l’alignement de la vue client-opérateur sur les architectures de réseau”. In: *CoRes 2023-8èmes Rencontres Franco-phones sur la Conception de protocoles, l’évaluation de performances et l’expérimentation de Réseaux de communication*. 2023.

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- [13] Martino Trevisan, Idilio Drago, Paul Schmitt, and Francesco Bronzino. “Measuring the Performance of iCloud Private Relay”. In: *Passive and Active Measurement Conference*. 2023.
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- [16] Francesco Bronzino, Sumit Maheshwari, Ivan Seskar, and Dipankar Raychaudhuri. “Application-Aware End-to-End Virtualization Using a Named-Object Based Network Architecture”. In: *33th International Teletraffic Congress*. 2021.
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- [6] Sumit Maheshwari, Dipankar Raychaudhuri, Ivan Seskar, and Francesco Bronzino. “Scalability and Performance Evaluation of Edge Cloud Systems for Latency Constrained Applications”. In: *IEEE/ACM Symposium on Edge Computing (SEC)*. 2018.
- [20] Paul Schmitt, Francesco Bronzino, Renata Teixeira, Tithi Chattopadhyay, and Nick Feamster. “Enhancing Transparency: Internet Video Quality Inference from Network Traffic”. In: *46th Research Conference on Communication, Information and Internet Policy*. 2018.
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- [23] Francesco Bronzino, Dipankar Raychaudhuri, and Ivan Seskar. “Demonstrating context-aware services in the mobility first future internet architecture”. In: *28th International Teletraffic Congress*. 2016.
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- [31] Xi Jiang, Shinan Liu, Aaron Gember-Jacobson, Paul Schmitt, Francesco Bronzino, and Nick Feamster. “Generative, High-Fidelity Network Traces”. In: *Proceedings of the 22nd ACM Workshop on Hot Topics in Networks* (2023), pp. 1–7.
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- [33] Shinan Liu, Francesco Bronzino, Paul Schmitt, Arjun Nitin Bhagoji, Nick Feamster, Hector Garcia Crespo, Timothy Coyle, and Brian Ward. “Understanding Model Drift in a Large Cellular Network”. In: *Practical Adoption Challenges of ML for Systems in Industry Workshop* (2022).
- [34] Razanne Abu-Aisheh, Francesco Bronzino, Myriana Rifai, Lou Salaun, and Thomas Watteyne. “Coordinating a Swarm of Micro-Robots Under Lossy Communication”. In: *2nd ACM International Workshop on Nanoscale Computing, Communication, and Applications*. 2021.
- [35] Razanne Abu-Aisheh, Myriana Rifai, Francesco Bronzino, and Thomas Watteyne. “(POSTER) Impact of Connectivity Degradation on Networked Robotic Swarm Cooperation”. In: *17th International Conference on Distributed Computing in Sensor Systems*. 2021.
- [36] Francesco Bronzino, Elizabeth Cully, Nick Feamster, Shinan Liu, Jason Livingood, and Paul Schmitt. “Interconnection Changes in the United States”. In: *IAB COVID-19 Workshop* (2021).
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- [39] Razanne Abu-Aisheh, Francesco Bronzino, Myriana Rifai, Brian Kilberg, Kris Pister, and Thomas Watteyne. “Atlas: Exploration and Mapping with a Sparse Swarm of Networked IoT Robots”. In: *16th International Conference on Distributed Computing in Sensor Systems*. 2020.
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Posters

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- [50] Francesco Bronzino et al. *Understanding and Improving video QoE - a Last-Mile Perspective*. Poster at ACM Internet Measurement Conference (IMC) 2017. 2017.
- [51] Francesco Bronzino et al. *Cloud Services Enhancements Through Application Specific Routing in MobilityFirst FIA*. Poster and Demonstration at the 22nd GENI Engineering Conference (GEC-22). 2015.
- [52] Francesco Bronzino et al. *Public Safety Focus: Connected Vehicles Assisting First Responders*. Plenary talk and Demonstration at the 22nd GENI Engineering Conference (GEC-22). 2015.
- [53] Francesco Bronzino et al. *Supporting Rich Network Services in Name Based Architectures*. Talk at the NSF Future Internet Architecture Workshop. 2015.
- [54] Francesco Bronzino et al. *In-Network Compute Layer in MobilityFirst Future Internet Architecture FIA*. Poster and Demonstration at the 20th GENI Engineering Conference (GEC-20). 2014.
- [55] Francesco Bronzino et al. *Introduction to the MobilityFirst FIA Protocol Suite*. Tutorial at the 21st GENI Engineering Conference (GEC-21). 2014.
- [56] Francesco Bronzino et al. *Context Services in MobilityFirst FIA*. Plenary talk and Demonstration at the 18th GENI Engineering Conference (GEC-18). 2013.
- [57] Francesco Bronzino et al. *MobilityFirst Network API use in Mobile Applications*. Poster and Demonstration at the 16th GENI Engineering Conference (GEC-16). 2013.
- [58] Francesco Bronzino et al. *Multi-Homing Support in MobilityFirst FIA*. Poster and Demonstration at the 17th GENI Engineering Conference (GEC-17). 2013.

Tech reports

- [59] Razanne Abu-Aisheh, Francesco Bronzino, Myriana Rifai, Brian Kilberg, Kris Pister, and Thomas Watteyne. “Exploration and Mapping using a Sparse Robot Swarm: Simulation Results”. PhD thesis. Inria, 2020.

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Software and datasets

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On the news

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Funding

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- [87] *Industrial contract with CELESTE (Half Ph.D. thesis funding) (84k EUR)*.