MARIOS ILIOFOTOU

CONTACT
INFORMATION

Narus, Inc.
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RESEARCH
INTERESTS

- Network monitoring and security: Analyzing and profiling Internet traffic and detecting unwanted applications.
- Complex networks: Studying the structure and the evolution of large, dynamic graphs, such as IP-to-IP interaction networks.

HIGHER
EDUCATION

- 2007 - 2011. University of California Riverside, USA.
  Ph.D. in Computer Science.
- 2005-2007. University of California Riverside, USA.
  M.S. in Computer Science. GPA: 4/4.
- 2000-2005. Technical University of Crete, Greece.
  Diploma in Electronic and Computer Engineering (five-year course).
  GPA: 8.7/10 (Excellent).

WORK
EXPERIENCE

- 2/2011-today. **Narus, Inc.** Researcher and senior member of technical staff. Sunnyvale, CA 94085. United States.
- 9/2010-11/2010. **Microsoft Research**. Internship at the Systems and Networking Group. Cambridge, CB3 0FB, U.K.
- 9/2009-12/2009. **Lawrence Livermore National Laboratory**. Internship at the Institute of Scientific Computing Research. Livermore, CA 94551. United States.
- 5/2009-8/2009. **Telefonica Research**. Internship at the Internet Research Group. Barcelona, Spain.
- 7/2007-9/2007. **Cisco Systems, Inc.** Internship at the Research Center Department. San Jose, CA 95134-1706. United States.
- 7/2006-9/2006. **Cisco Systems, Inc.** Internship at the Storage and Software Engineering Department. San Jose, CA 95134-1706. United States.
- 1/2007-1/2011 **University of California, Riverside.** Research Assistant at the Networking Laboratory. Riverside, CA 92521. United States.
- 9/2005-1/2007 **University of California, Riverside.** Teaching Assistant for five academic quarters. Riverside, CA 92521. United States.

SCHOLARSHIPS AND
AWARDS

- 2007, 2006, and 2005. Graduate Student Scholarship from the A.G. LEVENTIS FOUNDATION. Zurich, Switzerland.
- 2006. Dean's Distinguished Fellowship, Department of Computer Science, College of Engineering, University of California, Riverside.
- 2005. Technical Chamber of Greece, award for excellent academic performance in undergraduate studies.
- 2004. Granted scholarship of academic merit by the National Organization of Scholarships of Greece for the academic year 2003-2004.

PUBLICATIONS   Journals:

1. **M. Iliofotou**, H. Kim, P. Pappu, M. Faloutsos, M. Mitzenmacher, and G. Varghese. "Graption: A Graph-based P2P Traffic Classification Framework for the Internet Backbone.." *Computer Networks (COMNET)* by Elsevier, Volume 55 Issue 8, June, 2011.

2. K.Pelechrinis, **M.Iliofotou** and S.V.Krishnamurthy. "Denial of Service Attacks in Wireless Networks: The Case of Jammers." *IEEE Journal of Communication Surveys and Tutorials.* Volume 13 Issue 2, May 2011.

3. Damien Fay, H. Haddadib, S. Uhlig, L. Kilmartin, A. W. Moore, J. Kunegise, and **M. Iliofotou**. "Network clustering via spectral projections." To appear in the Journal of *Computer Networks (COMNET)* by Elsevier 2011.

Peer Review Conferences:

4. Yi Yang, **M. Iliofotou**, M. Faloutsos, and B. Wu. "Analyzing Interaction Communication Networks in Enterprises and Identifying Hierarchies." Proceedings of the 1st IEEE International Workshop on Network Science (NSW), West Point, NY, June 2011. (acceptance rate: 30%)

5. **M. Iliofotou**, B. Gallagher, T. Eliassi-Rad, G. Xie, and M. Faloutsos. "Profiling-by-Association: A Resilient Traffic Profiling Solution for the Internet Backbone." Proceedings of the 6th ACM International Conference on Emerging Networking Experiments and Technologies (ACM CoNEXT). Philadelphia, PA. December 2010. (acceptance rate: 19%)

6. **M. Iliofotou**, G. Siganos, X. Yang, and P. Rodriguez. "Comparing BitTorrent Clients in the Wild: The Case of Download Speed." Proceedings of the 9th USENIX International workshop on Peer-To-Peer Systems (USENIX IPTPS). San Jose, CA. April 2010. (acceptance rate: 20%)

7. B. Gallagher, **M. Iliofotou**, T. Eliassi-Rad, and M. Faloutsos. "Homophily in Application Layer and its Usage in Traffic Classification." Proceedings of the 29th IEEE Conference on Computer Communications (IEEE INFOCOM Mini-Conference). San Diego, CA. March 2010. (acceptance rate: 24%)

8. **M. Iliofotou**, M. Faloutsos, and M. Mitzenmacher. "Exploiting Dynamicity in Graph-based Traffic Analysis: Techniques and Applications." Proceedings of the 5th ACM International Conference on Emerging Networking Experiments and Technologies (ACM CoNEXT). Rome, Italy. December 2009. (acceptance rate: 17%)

9. **M. Iliofotou**, H. Kim, P. Pappu, M. Faloutsos, M. Mitzenmacher, and G. Varghese. "Graph-based P2P Traffic Classification at the Internet Backbone." Proceedings of the 12th IEEE Global Internet Symposium (IEEE GI). Rio de Janeiro, Brazil. April 2009. (acceptance rate: 34%)

10. **M. Iliofotou**, P. Pappu, M. Faloutsos, M. Mitzenmacher, S. Singh, and G. Varghese. "Network Monitoring Using Traffic Dispersion Graphs (TDGs)." Proceedings of the 7th ACM SIGCOMM conference on Internet measurement (ACM IMC). San Diego, CA. October 2007. (acceptance rate: 24%)

11. A .Vlavianos, **M. Iliofotou**, and M. Faloutsos. "BiToS: Enhancing BitTorrent for Supporting Streaming Applications." Proceedings of the 9th IEEE Global Internet Symposium (IEEE GI). Barcelona, Spain. April 2006. (acceptance rate: 35%)

Work Under Submission:

12. **M. Iliofotou**, T. Karagiannis and M. Faloutsos. "Redefining the Traffic Characterization Problem In a World Dominated by HTTP." Under submission in IW3C2 World Wide Web Conference (WWW) 2012.

13. P. Bhattacharya, **M. Iliofotou**, I. Neamtiu, and M. Faloutsos. "Using Graph Analysis to Understand and Facilitate Software Evolution." Under submission in the International Conference on Software Engineering (ICSE) 2012.

14. G. Xie, **M. Iliofotou**, R. Keralapura, M. Faloutsos, and A. Nucci. "SubFlow: Towards Practical Flow-Level Traffic Classification." Under submission in the IEEE Conference on Computer Communications (IEEE INFOCOM) 2012.

15. Yi Wang, **M. Iliofotou**, M. Faloutsos, and Bin Wu. Calls vs. Texts: Studying a Composite Communication Network from Call and Text Records. Work in Progress 2012.

16. G. Siganos, **M. Iliofotou**, X. Yang, J. Pujol, and P. Rodriguez. "Apollo: A Sustainable Observatory for Bittorrent." Work in Progress 2011.

PROFESSIONAL ACTIVITIES

Journal and Magazine Referee:
- IEEE/ACM Transactions on Networking, Computer Networks (COMNET) by Elsevier, Computer Communications (COMCOM) by Elsevier, International Journal of Communication Systems (IJCS), IEEE Communication Letters, IEEE Network.

RESEARCH GRANTS

- GraphWare: Using Graphs to Identifying Malware Traffic on the Internet based on their Community Structure and their Pack-Level Behavioral Characteristics. $50,000 FY11 SETAC Subcontract with University of California, Riverside. Period 1/1/10-9/1/11. PI: Professor Michalis Faloutsos.
  Co-PI: **Marios Iliofotou** and Tina Eliassi-Rad.

- A Graph-Based Approach to Traffic Monitoring and Application Classification $250,000. NSF NETS-NECO 0832069. Period: 1/1/09-12/30/11.
  Significant contributions in writing the grant based on my Ph.D. thesis.
  PI: Professor Michalis Faloutsos.

COMPUTER RELATED SKILLS

- Programming Languages:
  Perl, Java, C, C++, Matlab, Python.

REFERENCES

1. **Michalis Faloutsos**
   Prof. Department of Computer Science and Engineering
   University of California, Riverside, CA 92521
   Tel: +1 (951) 827-2480 (office), +1 (951) 328-9296 (home)
   Website: http://www.cs.ucr.edu/∼michalis
   Email: michalis@cs.ucr.edu

2. **George Varghese**
   Prof. Department of Computer Science and Engineering
   University of California, San Diego, La Jolla, CA 92093-0114
   Tel: +1 (858) 822-0424 (office)
   Website: http://cseweb.ucsd.edu/users/varghese/
   Email: varghese@cs.ucsd.edu

3. **Tina Eliassi-Rad**
   Assistant Prof. Department of Computer Science
   Rutgers University, Piscataway, NJ 08854-8019
   Tel: +1 (510) 299-8700 (office)
   Website: http://eliassi.org/
   Email: tina@eliassi.org

4. **Srikanth Krishnamurthy**
   Prof. Department of Computer Science and Engineering
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