

ANTONIS MANOUSIS

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Nationality: Greek - Available both for US/EU locations

Collaborative Innovation Center, 4720 Forbes Ave, Pittsburgh, PA 15213

RESEARCH INTERESTS

Computer Networks, Telemetry, Analytics

EDUCATION

Carnegie Mellon University

Ph.D. in Electrical & Computer Engineering

Advisors: Vyas Sekar

Thesis: Real-Time Telemetry & Analytics Systems for High-Cardinality Data

Pittsburgh, PA, USA

Aug. 2021 (Expected)

National Technical University of Athens

M.Eng. in Electrical and Computer Engineering

GPA: 9.2/10 (top 3%)

Athens, Greece

Feb. 2015

KTH - Royal Institute of Technology

Erasmus Exchange Program

Stockholm, Sweden

Spring 2012

PUBLICATIONS

- [1] **Manousis, Antonis**, Alan Liu, Ran Ben Bassat, and Vyas Sekar. Hydra: Scalable, real-time multi-dimensional analytics. **Currently Under Submission**.
- [2] **Manousis, Antonis**, Henry Millner, Yan Li, Vyas Sekar, and Hui Zhang. Proteas: An alerting system for internet video viewership anomalies. **Currently Under Submission**.
- [3] Tooba Bajwa, **Manousis, Antonis**, Vyas Sekar, and Justine Sherry. [Empirically Evaluating Configurations of a Sketch-Based Data Analysis Framework](#). N2Women Professional Workshop - Co-located with the 2020 ACM SIGCOMM Conference, 2020.
- [4] Zaoxing Liu, Hun Namkung, Anup Agarwal, **Antonis Manousis**, Peter Steenkiste, Srinivasan Seshan, and Vyas Sekar. [Sketchy With a Chance of Adoption: Can Sketch-Based Telemetry Be Ready for Prime Time?](#) arXiv preprint arXiv:2012.06001, 2020.
- [5] **Manousis, Antonis**, Rahul Anand Sharma, Vyas Sekar, and Justine Sherry. [Contention-Aware Performance Prediction For Virtualized Network Functions](#). In Proceedings of the 2020 ACM SIGCOMM Conference, pages 270–282, 2020.
- [6] Zaoxing Liu, **Manousis, Antonis**, Gregory Vorsanger, Vyas Sekar, and Vladimir Braverman. [One Sketch to Rule Them All: Rethinking Network Flow Monitoring with UnivMon](#). In Proceedings of the 2016 ACM SIGCOMM Conference, page 101114, 2016.
- [7] **Manousis, Antonis**, Roy Ragsdale, Ben Draffin, Adwiteeya Agrawal, and Vyas Sekar. [Shedding light on the adoption of let's encrypt](#). arXiv preprint arXiv:1611.00469, 2016.

RESEARCH & PROFESSIONAL EXPERIENCE

Graduate Research Assistant, ECE Department, CMU

Aug. 2015 - Present

- Worked on building Orchestration frameworks ensuring predictable performance in NFV [5].
- Worked in the design and development of novel sketch-based telemetry frameworks [6, 1, 4, 3].

Research Intern, Conviva, Foster City (CA), USA

May - Aug. 2018

- Worked on designing a real-time alerting framework to detect and diagnose viewership anomalies in video streaming platform [2].

Research Intern, Intel Labs, Dublin, Ireland

Jan. - Jul. 2015

- Worked on the development of [NetIDE](#), an IDE to support the network design cycle in SDN environments.

Research Assistant, Greek Research & Technology Network (Diploma thesis)

Sep. 2014 - Jan. 2015

- Implemented highly-available virtual routers for [Synnefo](#), an open source IaaS cloud stack.

INVITED TALKS & CONFERENCES

Contention-Aware Performance Prediction for Virtualized Network Functions

- at ACM SIGCOMM, virtual.

Aug. 2020

PROTEAS: An alerting system for Internet video viewership anomalies

- at Conviva, Foster City, CA.

Jul. 2019

HONORS & AWARDS

- ACM SIGCOMM 2016 Student Travel Grant *2016*
- Gerontelis Foundation Fellowship *2016*
- Deans Graduate Fellowship, CMU *2015*
- Frank J. Marshall Graduate Fellowship, CMU *2015*

TEACHING EXPERIENCE

18-500: Senior Capstone, ECE, CMU, Head Teaching Assistant, CMU *Fall 2020*

Mentored 3 teams of final year undergraduate students throughout the design and implementation phases of their semester-long capstone project in ECE.

18-731: Network Security, ECE, CMU, Head Teaching Assistant, CMU *Spring 2019*

Coordinated homework assignments and class exams for this Master's level class. Held weekly office hours.

GRADUATE COURSEWORK & TECHNICAL SKILLS

Graduate Coursework

| | |
|---|-----------------------------|
| Fall '15 Introduction to Computer Security | <i>Lujo Bauer</i> |
| Fall '15 Computer Architecture | <i>Onur Mutlu</i> |
| Spring '16 Computer Networks | <i>Srini Seshan</i> |
| Spring '16 Network Security | <i>Vyas Sekar</i> |
| Fall '16 Advanced Operating Systems and Distributed Systems | <i>Dave Andersen</i> |
| Fall '16 Networks in the Real World | <i>Radu Marculescu</i> |
| Spring '17 Introduction to Machine Learning | <i>Aarti Singh</i> |
| Spring '18 Probabilistic Graphical Models | <i>Kayhan Batmanghelich</i> |

Programming Languages

C, C++, Python, Java, Bash

LANGUAGES

Native Proficiency: Greek

Full Professional Proficiency: English, French, Spanish

Limited Working Proficiency: Italian, Swedish

Elementary Proficiency: Japanese