

Soteris Demetriou Associate Professor, Department of Computing, Imperial College London
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Qualifications

- PhD Computer Science, University of Illinois at Urbana-Champaign, IL, USA (Thesis)
- MSc Computer Science, University of Illinois at Urbana-Champaign, IL, USA (Thesis)
- BSc+MEng in Electrical and Computer Engineering, University of Patras, Greece

Selected Professional Appointments

Imperial College London

LONDON, UK

Associate Professor - Department of Computing

Sep '24 – ongoing

Director of Imperial's Academic Centre of Excellence in Cyber-Security Research. Lead of the Applications, Platforms and Systems Security group (apss). Co-leading instruction of the (Advanced Computer Security class), and the Computer Systems class.

Assistant Professor - Department of Computing

Sep '18 – Aug '24

Lead of the Applications, Platforms and Systems Security group (apss). Co-leading instruction of the Advanced Computer Security class.

Meta Platforms, Inc.

SEATTLE (WA), USA

Visiting Professor - Core Systems

Jan '22 – Jun '23

– Led projects related to service routing and load balancing, continuous development, serverless compute, and mobile configurations.
 – Mobile Configuration Management paper accepted at NSDI '24 ;Service Mesh paper accepted at OSDI '23; Continuous Deployment paper accepted at OSDI '23; Function-as-a-Service paper accepted at SOSP '23.

Hewlett Packard Labs

PALO ALTO (CA), USA

Research Intern - Networking and Mobility Lab

Jun '16 – Jan '17

– Designed an Internet of Things (IoT) automation framework. Related Patent: [US10778516B2](#).
 – Designed and evaluated a location optimization algorithm for connected cars. We reduced positioning errors by 9x. Related Patent: [US10380889B2](#). Conference paper accepted at IEEE INFOCOM '18.
 – Worked on detection of user privacy violations through vision libraries used by Android apps. Conference paper accepted at ACM SenSys '17.
 – Won the *best in class award* during the HPE Intern Project Fair.

Samsung Research America

MOUNTAIN VIEW (CA), USA

Research Intern - Mobile Payments and Security Lab

Jun '15 – Aug '15

– Designed, implemented and evaluated a secure access control and management system for internet-of-things (IoT) devices. Conference paper accepted at WiSec '17.
 – Worked on a security analysis on application installation on the Android operating system. Conference paper accepted at IEEE/IFIP DSN '17.
 – Won the *best pitch award* during the Samsung Innovation Jam.

Grants and Funding

- [EPSRC/JST] *NeSyDebates: Neuro-Symbolic Debates for Safeguarded Generative AI*. **Role:** Co-I. UK PI: Prof. Francesca Toni (Imperial College London). Funder: EPSRC (UK) & Japan Science and Technology Agency (JST) — ASPIRE Japan-UK Joint Programme on Advancing Human-Centered AI. Period: January 2026 – March 2031.

Selected Awards

Best Paper Award: Our paper titled "Adversarial 3D Virtual Patches using Integrated Gradients" was bestowed a best paper award at the eighth IEEE/ACM Workshop on the Internet of Safe Things (SafeThings) - co-located with IEEE S&P '24. (*SafeThings, May 2024*)

Distinguished Paper Award: Our paper "Resolving the Predicament of Android Custom Permissions" received the distinguished paper award at NDSS '18, (*NDSS, February 2018*)

HLF Young Researcher: I was selected as one of the 200 most qualified young researchers in the field of Mathematics and Computer Science, to participate in the 5th Heidelberg Laureate Forum (HLF). (*Scientific Committee of the Heidelberg Forum Foundation, April 2017*)

Fulbright Scholar: I was awarded a highly competitive scholarship targeting outstanding scholars. (*J William Fulbright Foreign Scholarship Board (JWFFSB), Feb 2012*)

Selected Publications - for a full list click [here](#)

My name appears in bold when I was the main supervisor or the main contributor, names of people I supervised in italics. Acceptance rates given when made available; citations from Google Scholar as of June 2025. More [here](#).

- [PETS] Anastasios Lepipas, Marios Charalambides, Jiani Liu, Yiyang Guan, Dominika Woszczyk, Mansi, Hai Le, **Soteris Demetriou**. “Leaky Diffusion: Attribute Leakage in Text-Guided Image Generation”. In the Proceedings of the 25th Privacy Enhancing Technologies Symposium (PETS ’25).
- [PETS] Dominika Woszczyk, **Soteris Demetriou**. “DiDOTS: Knowledge Distillation from Large-Language-Models for Dementia Obfuscation in Transcribed Speech”. In the Proceedings of the 25th Privacy Enhancing Technologies Symposium (PETS ’25). *Cited by 1.*
- [AsiaCCS] Anastasios Lepipas, Anastasia Borovykh, **Soteris Demetriou**. “Username Squatting on Online Social Networks”. 19th ACM Asia Conference on Computer and Communications Security (ACM ASIACCS ’24). *Acceptance rate=21.9% (129/588); Cited by 2.*
- [SOSP] Alireza Sahraei, **Soteris Demetriou**, Haoran Zhang, Abhigna Nagaraja, Amirali Sobhgol, Neeraj Pathak, Girish Joshi, Carla Souza, Bo Huang, Wyatt Cook, Andrii Golovei, Pradeep Venkat, Andrew McFague, Dimitrios Skarlatos, Vipul Patel, Ravinder Thind, Ernesto Gonzalez, Yun Jin, Chunqiang Tang. “XFaaS: Hyperscale and Low Cost Serverless Functions at Meta”. At the 29th ACM Symposium on Operating Systems Principles (SOSP 2023). *Acceptance rate=18.5% (43/232); Cited by 36.*
- [OSDI] Harshit Saokar, **Soteris Demetriou**, Nick Magerko, Max Kontorovich, Josh Kirstein, Margaut Leibold, Dimitrios Skarlatos, Hitesh Khandelwal, Chunqiang Tang. “ServiceRouter: Hyperscale and Minimal Cost Service Mesh at Meta”. 17th USENIX Symposium on Operating Systems Design and Implementation (OSDI), 2023. *Acceptance rate=19.6% (50/255); Cited by 31.*
- [ESORICS] Zhongyuan Hau, **Soteris Demetriou**, Luis Muñoz-González, Emil C. Lupu, “Shadow-Catcher: Looking Into Shadows to Detect Ghost Objects in Autonomous Vehicle 3D Sensing”, In the Proceedings of the 26th European Symposium on Research in Computer Security (ESORICS), October 2021. *Cited by: 38. [Finalist (Europe) at the 2021 Applied Research Competition - CSAW’21].*
- [MobiSys] Fan Mo, Ali Shahin, Kleomenis Katevas, Soteris Demetriou, Ilias Leontiadis, Andrea Cavallaro, Hamed Haddadi. “DarkneTZ: Towards Model Privacy at the Edge using Trusted Execution Environments”. 18th ACM International Conference on Mobile Systems, Applications, and Services (ACM MobiSys), June 2020. *Acceptance rate=19.4% (34/175); Cited by: 230.*
- [[INFOCOM] **Soteris Demetriou**, Puneet Jain, Kyu-Han Kim. “CoDrive: Improving Automobile Positioning via Collaborative Driving”. IEEE International Conference on Computer Communications (IEEE INFOCOM ’18), Honolulu, HI, USA. April 2018. *Acceptance rate=19.2% (309/1606); Cited by: 24. [Best-In-Session Presentation Award]*
- [NDSS] Güliz Seray Tuncay, Soteris Demetriou, Karan Ganju and Carl A. Gunter. “Resolving the Predicament of Android Custom Permissions”. ISOC Network and Distributed System Security Symposium (NDSS ’18). San Diego, CA, USA. February 2018. *Acceptance rate=21.4% (71/331); Cited by: 63. [Distinguished Paper Award]*
- [NDSS] **Soteris Demetriou**, Whitney Merrill, Wei Yang, Aston Zhang and Carl A. Gunter. “Free for All! Assessing User Data Exposure to Advertising Libraries on Android”. ISOC Network and Distributed System Security Symposium (NDSS ’16). San Diego, CA, USA. February 2016. *Acceptance rate=15.4% (60/389); Cited by 121.*
- [NDSS] **Soteris Demetriou**, Xiaoyong Zhou, Muhammad Naveed, Yeonjoon Lee, Xiaofeng Wang and Carl A. Gunter. “What’s in Your Dongle and Bank Account? Mandatory and Discretionary Protection of Android External Resources”. ISOC Network and Distributed System Security Symposium (NDSS ’15). San Diego, CA, USA. February 2015. *Acceptance rate=16.9% (51/302); Cited by 688.*

Selected Patents

1. 2020. Soteris Demetriou, Puneet Jain. “Determination of a Next State of Multiple IoT devices within an Environment”. US Patent No: US 10,778,516. Patent Date: September 15, 2020. *Cited by 4.*
2. 2020. XiaoFeng Wang, Kan Yuan, Xiaoyong Zhou, Muhammad Naveed, Soteris Demetriou, Carl Gunter. “External Resource Control of Mobile Devices”. US Patent No: US 10,685,142 B2. Patent Date: June 16, 2020, *Cited by 11.*

Service

Technical Program and Organisation Committees - Selected List

[**IEEE S&P**] 46th IEEE Symposium on Security and Privacy (IEEE S&P) (2026). Role: Technical Program Committee.

[**SECURITY**] 34th USENIX Security Symposium (USENIX SECURITY) (2025). Role: Technical Program Committee.

[**ACM CCS**] ACM Conference on Computer and Communications Security. (2019,2024). Role: Technical Program Committee (2019,2024); Session Chair (2019) (Cyberphysical Security Session).

[**PETS/PoPETS**] Privacy Enhancing Technologies Symposium (2022,2023,2025). Role: Technical Program Committee of PETS and member of the Editorial Board of the Proceedings on PETS (PoPETS).

[**IEEE SafeThings**] IEEE Workshop on the Internet of Safe Things (IEEE SafeThings 2022, 2024). Co-located with the IEEE Symposium on Security and Privacy (IEEE S&P '22, '24). Role: General Co-Chair (2022, 2024).