

Dimitra Giantsidi

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Education

Ph.D. in Computer Science (Sept 2019 - present)

University of Edinburgh, UK

Thesis: Hardware-Assisted Distributed Dependable Distributed Data Management Systems

Microsoft Research PhD Fellow

Advisor: Prof. Dr. Pramod Bhatotia

MSc in Computer Science (Sept 2018 - Aug 2019)

University of Edinburgh, UK

Highest Honors, Best Female MSc Thesis Award [link]

MEng in Computer and Electrical Engineering (Sept 2012 - Mar 2018)

National Technical University of Athens (NTUA), Greece

Highest Honors (Top 8%), Top 0.1% in national qualification exams

Employment

Microsoft Research, Redmond, US To start on May 2024

Research Intern at Cloud and Infrastructure Security Group

Microsoft Research, Cambridge, UK Sept 2021 - Dec 2021

Research Intern at Confidential Computing Group

Created a new high-performance Key-Value store system for privileged timing attacks on top of Intel SGX and RDMA. Exceptional throughput results on widely used workloads in Microsoft's private datacenter.

University of Edinburgh, UK June 2023 - present

Research Software Engineer

Created a new trusted NIC architecture for the cloud on top of FPGA-based SmartNICs. The system is superior in terms of performance and robustness w.r.t. current networked systems in the cloud.

Intracom Telecom, Athens, Greece Jul 2017 - Jul 2018

Software Systems Engineer

Designed and built a resource-aware infrastructure for the cloud-hosted data centers. The system saved energy and cpu resources while company's clients SLAs were met.

Ph.D. Thesis

Topic: Hardware-Assisted Dependable Distributed Data Management Systems

Advisor: Prof. Dr. Pramod Bhatotia

- Designed distributed systems for the untrusted cloud infrastructure with increased security properties and performance.
- Leveraged the recent hardware advancements in trusted computing, byte-addressable storage and direct I/O networking and SmartNICs.
- **Submitted 4 first-author papers and 2 first-author paper acceptances (top tier).**
- **Awarded a best (first-author) paper nominee at IEEE/IFIP DSN'22 [Rank: A1]** (3 nominees among 49 accepted papers and 262 total submissions).

Conference publications

TNIC: A Trusted NIC Architecture

ACM SIGCOMM 2024 (Under review)

A Hardware-Accelerated RECIPE For Designing Byzantine Fault Tolerant Replication Protocols

ACM CCS 2024 (Under review)

Anchor: Secure Persistent Memory Architecture

Dimitris Stravakakis, Dimitra Giantsidi, Maurice Bailleu, Philip Saendig, Shady Issa, Pramod Bhatotia

SIGMOD'24, Rank: A1

FlexLog: A Shared Log for Stateful Serverless Computing

Dimitra Giantsidi, Emmanouil Giortamis, Nathaniel Tornow, Florin Dinu, Pramod Bhatotia

ACM HPDC'23 [code], Rank: A1, Acceptance rate: 18.20%

Treaty: Secure Distributed Transactions

Dimitra Giantsidi, Maurice Bailleu, Natacha Crooks, Pramod Bhatotia

IEEE/IFIP DSN'22 (Best paper nominee) [code], Rank: A1, Acceptance rate: 18.20%

Avocado: A Secure In-Memory Distributed Storage System.

Maurice Bailleu, Dimitra Giantsidi, Vasilis Gavrielatos, Le Quoc Do, Vijay Nagarajan, Pramod Bhatotia

USENIX ATC'21, Rank: A1, Acceptance rate: 23.1%

DICER: Diligent Cache Partitioning for Efficient Workload Consolidation

Konstantinos Nikas, Nikela Papadopoulou, Dimitra Giantsidi, Vasileios Karakostas, Georgios Goumas, Nectarios Koziris

ICPP'19, Rank: A2, Acceptance rate: 20%

Talks

ACM HPDC'23, Orlando, US

FlexLog: A Shared Log for Stateful Serverless Computing

IEEE/IFIP DSN'22, Baltimore, US

Treaty: Secure Distributed Transactions

Third Annual SGX Community Day 2022 (virtual)

USENIX ATC'21 (virtual)

Avocado: A Secure In-Memory Distributed Storage System

Academic professional experience

Teaching assistant: Operating systems and Distributed Systems Engineering courses
University of Edinburgh and TU Munich, Dec 2019 - present

BSc/MSc thesis advisor: Supervised 3 BSc and 2 MSc thesis in TU Munich, Dec 2020 - present

Web chair: EuroSys'21

Reviewer: SysTEX '24 [link] EuroSys'23, SoCC'23, WWW'22

References

Prof. Dr. Pramod Bhatotia
TU Munich, Germany
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Prof. Dr. Manos Kapritsos
University of Michigan, USA
Email: manosc@umich.edu

Dr. Antonios Katsarakis
Huawei Research Center Edinburgh, UK
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Prof. Dr. Natacha Crooks
UC Berkeley, USA
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