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 Assistant
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 companyâĂŹs 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: 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: manosk@umich.edu

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