Christina Giannoula

Department of Computer & Mathematical Sciences

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Email: christina.giann@gmail.com Webpage: https://cgiannoula.github.io University of Toronto 40 St. George Street, M5S2E4 Toronto, Canada

EDUCATION

National Technical University of Athens (NTUA)

PhD in Electrical and Computer Engineering

Advisors: Prof. Georgios Goumas (primary), Prof. Nectarios Koziris, Prof. Onur Mutlu Nov 2016–Oct 2022 PhD Thesis: *Accelerating Irregular Applications via Efficient Synchronization and Data Access Techniques* The PhD thesis is publicly available at https://arxiv.org/abs/2211.05908.

The PhD thesis has received the Iakovos Giurunlian award for the best doctoral thesis with industrial interest. The announcement is available here.

National Technical University of Athens (NTUA)

Diploma in Electrical and Computer Engineering

5-year Degree, Masters equivalent, GPA: 9.30/10.0 (top 2%)

Nov 2011-Oct 2016

Advisor: Prof. Georgios Goumas

Diploma Thesis: Parallelization Techniques for Concurrent Data Structures and Graph Algorithms (Grade 10/10)

Professional Experience

University of Toronto (UofT)

Toronto, Canada Jan 2023–Present

Postdoctoral Researcher

Advisor: Prof. Gennady Pekhimenko

Position Description: Postdoctoral researcher working and collaborating with Prof. Gennady Pekhimenko, Prof. Andreas Moshovos, Prof. Nandita Vijaykumar and their research groups.

CentML, centml.ai

Toronto, Canada

Postdoctoral Researcher

Feb 2024-Present

Position Description: Postdoctoral researcher working with research engineers in the field of systems for machine learning.

ETH Zürich Remote

Senior Researcher Jan 2020–Present

Position Description: Research collaborator with the SAFARI research group led by Prof. Onur

EuroCC o **EU-funded** project

Athens, Greece

Research Assistant

Apr 2022-Aug 2022

Position Description: Coordinate activities and perform training sessions in HPC-related fields and technologies (www.eurocc-access.eu/).

Cybele o **EU-funded** project

Athens, Greece

Software Engineer

May 2020-Apr 2022

Project Description: Fostering precision agriculture and livestock farming through secure access to large-scale HPC-enabled virtual industrial experimentation environment empowering scalable big data analytics (www.cybele-project.eu).

ETH Zürich Zürich, Switzerland Jan 2019-Dec 2019

PhD Researcher, Advisor: Prof. Onur Mutlu

Position Description: Visiting PhD researcher at the Systems Group (SAFARI research group) in the Computer Science Department.

Bonseyes • EU-funded project

Athens, Greece Jun 2017-Jan 2019

Software Engineer Project Description: Transforming AI development from a cloud centric model, dominated by

large internet companies, to an edge device centric model through a marketplace and an open AI platform (www.bonseyes.eu).

Awards and Grants

EECS Rising Star October 2024

Awarded as Rising Star in Electrical Engineering and Computer Science (EECS) for the year of 2024 (70 selected from 370 applicants, 18.9% selection rate).

PostDoc Research Grant August 2024

Postdoctoral Research Grant for the year of 2022-2023 from the Vector Institute for Artificial Intelligence (https://vectorinstitute.ai/), CAD6000.

Machine Learning and Systems (MLSys) Rising Star

July 2024

Awarded as MLCommons Rising Star in Machine Learning and Systems for the year of 2024 (41 selected from 170 applicants, 24.1% selection rate).

PostDoc Research Grant August 2023

Postdoctoral Research Grant for the year of 2022-2023 from the Vector Institute for Artificial Intelligence (https://vectorinstitute.ai/), CAD3000.

Doctoral Thesis Award August 2023

Iakovos Giurunlian Award for the Best PhD/Doctoral Thesis with a subject of Industrial Interest in the year of 2022 at NTUA, €1750.

Sep 2021-Oct 2022 PhD Fellowship

Funded Research Fellowship from the Foundation for Education and European Culture (IPEP), €4000.

PhD Fellowship Aug 2017-Apr 2020

Funded Research Fellowship from the General Secretariat for Research and Technology (GSRT) and the Hellenic Foundation for Research and Innovation (HFRI), €27900.

Distinction for Academic Excellence

2014-2015

"Paris Kanellakis" Award at ECE NTUA for the Highest GPA over all Courses in the Field of Information Technology (GPA 9.67/10), €2400.

Other Research Awards/Grants

- Greek Women in STEM Award in Technology Field, September 2024, €200.
- Thomaidion Award at NTUA for the Research Paper "DaeMon: Architectural Support for Efficient Data Movement in Fully Disaggregated Systems" published at SIGMETRICS 2023, August 2024, €270.
- Thomaidion Award at NTUA for the Research Paper "High-Performance and Balanced Parallel Graph Coloring on Multicore Platforms" published at Journal of Supercomputing 2022, July 2023, €360.
- Thomaidion Award at NTUA for the Research Paper "SynCron: Efficient Synchronization Support for Near-Data-Processing Architectures" published at HPCA 2021, November 2022, €480.
- Student Travel Grant Award to Attend the ACM SIGMETRICS Conference 2022 in Mumbai, June 2022, \$900.

- Thomaidion Award at NTUA for the Research Paper "NATSA: A Near-Data Processing Accelerator for Time Series Analysis" published at ICCD 2020, May 2022, €360.
- HiPEAC Paper Award for the Research Paper "SynCron: Efficient Synchronization Support for Near-Data-Processing Architectures" published at HPCA 2021, March 2021.
- Thomaidion Award at NTUA for the Research Paper "Combining HTM with RCU to Speed Up Graph Coloring on Multicore Platforms" published at ISC 2018, March 2021, €320.
- Student Travel Grant Award to Attend the ACM PACT Conference 2018 in Limassol, November 2018, \$500
- 2nd Place Winner at PACT ACM Student Research Competition, November 2018.
- Student Travel Grant Award to Attend the HiPEAC ACACES Summer School 2018 in Fiuggi, July 2018 €1000.
- Student Travel Grant Award to Attend the IEEE HPCA Conference 2018 in Vienna, February 2018, \$800.
- Student Travel Grant Award to Attend the HiPEAC ACACES Summer School 2017 in Fiuggi, July 2017 €1000.
- "Antonios Sarafis" Award at ECE NTUA for the Highest GPA of the Academic Year (GPA 9.67/10), 2014-2015, €420.
- "Paris Kanellakis" Award at ECE NTUA for the Highest GPA over all Courses in the Field of Information Technology (GPA 8.79/10), 2013-2014, €580.

Publications

- 22. <u>Christina Giannoula</u>, Peiming Yang, Ivan Fernandez Vega, Jiacheng Yang, Sankeerth Durvasula, Yu Xin Li, Mohammad Sadrosadati, Juan Gomez Luna, Onur Mutlu, Gennady Pekhimenko PyGim: An Efficient Graph Neural Network Library for Real Processing-In-Memory Architectures SIGMETRICS/POMACS 2025
- 21. Qidong Su, Wei Zhao, Xin Li, Muralidhar Andoorveedu, Chenhao Jiang, Zhanda Zhu, Kevin Song, Christina Giannoula, Gennady Pekhimenko Seesaw: High-throughput LLM Inference via Model Re-Sharding

MLSys 2025

20. Pawan Kumar Sanjaya, <u>Christina Giannoula</u>, Ian Colbert, Ihab Amer, Mehdi Saeedi, Gabor Sines, Nandita Vijaykumar

DPWatch: A Framework For Hardware-Based Differential Privacy Guarantees IEEE CAL 2025

- 19. Yintao He, Haiyu Mao, <u>Christina Giannoula</u>, Mohammad Sadrosadati, Juan Gomez Luna, Huawei Li, Xiaowei Li, Ying Wang, Onur Mutlu
 - PAPI: Exploiting Dynamic Parallelism in LLM Decoding with a PIM-enabled Computing System ASPLOS 2025
- 18. Sankeerth Durvasula, Adrian Zhao, Fan Chen, Ruofan Liang, Pawan Kumar Sanjaya, Yushi Guan, **Christina Giannoula**, Nandita Vijaykumar

ARC: Warp-level Adaptive Atomic Reduction in GPUs to Accelerate Differentiable Rendering ASPLOS 2025

17. Zhanda, Zhu, <u>Christina Giannoula</u>, Muralidhar Andoorveedu, Qidong Su, Karttikeya Mangalam, Bojian Zheng, Gennady Pekhimenko

Mist: Efficient Distributed Training of Large Language Models via Memory-Parallelism Co-Optimization

- Cheng Chen, <u>Christina Giannoula</u>, Andreas Moshovos Regular-Low-Bitwidth Floating Point Quantization for Efficient and High-Quality Diffusion Models IISWC 2024
- Baorun Mu, <u>Christina Giannoula</u>, Shang Wang, Gennady Pekhimenko
 Sylva: Sparse Embedded Adapters via Hierarchical Approximate Second-Order Information ICS 2024
- 14. Yubo Gao, Maryam Haghifam, <u>Christina Giannoula</u>, Renbo Tu, Gennady Pekhimenko, Nandita Vijaykumar

Proteus: Preserving Model Confidentiality during Graph Optimizations MLSys 2024

13. Alberto Delmas Lascorz, Mostafa Mahmoud, Ali Hadi Zadeh, Milos Nikolic, Kareem Ibrahim, <u>Christina Giannoula</u>, Ameer Abdelhadi, Andreas Moshovos Atalanta: A Bit is Worth a "Thousand" Tensor Values ASPLOS 2024

12. Eugene Sha, Andy Liu, Kareem Ibrahim, Mostafa Mahmoud, <u>Christina Giannoula</u>, Ameer Abdelhadi, Andreas Moshovos

Marple: Scalable Spike Sorting for Untethered Brain-Machine Interfacing ASPLOS 2024

- 11. Jiacheng Yang, <u>Christina Giannoula</u>, Jun Wu, Mostafa Elhoushi, James Gleeson, Gennady Pekhimenko Minuet: Accelerating 3D Sparse Convolutions on GPUs EuroSys 2024
- Ivan Fernandez, <u>Christina Giannoula</u>, Aditya Manglik, Ricardo Quislant, Nika Mansouri Ghiasi, Juan Gómez-Luna, Eladio Gutiérrez, Oscar Plata, Onur Mutlu MATSA: An MRAM-based Energy-Efficient Accelerator for Time Series Analysis IEEE Access 2024
- Christina Giannoula, Kailong Huang, Jonathan Tang, Nectarios Koziris, Georgios Goumas, Zeshan Chishti, Nandita Vijaykumar
 DaeMon: Architectural Support for Efficient Data Movement in Fully Disaggregated Systems SIGMETRICS / POMACS 2023
- 8. <u>Christina Giannoula</u>, Athanasios Peppas, Georgios Goumas, Nectarios Koziris High-Performance and Balanced Parallel Graph Coloring on Multicore Platforms Journal of Supercomputing 2022
- 7. Juan Gómez-Luna, Izzat El Hajj, Ivan Fernandez, <u>Christina Giannoula</u>, Geraldo F. Oliveira, Onur Mutlu Benchmarking a New Paradigm: Experimental Analysis and Characterization of a Real Processing-in-Memory System

 IEEE Access 2022

6. <u>Christina Giannoula</u>, Ivan Fernandez, Juan Gómez-Luna, Nectarios Koziris, Georgios Goumas, Onur Mutlu

SparseP: Towards Efficient Sparse Matrix Vector Multiplication on Real Processing-In-Memory Architectures

SIGMETRICS / POMACS 2022

 Christina Giannoula, Nandita Vijaykumar, Nikela Papadopoulou, Vasileios Karakostas, Ivan Fernandez, Juan Gómez-Luna, Lois Orosa, Nectarios Koziris, Georgios Goumas, Onur Mutlu SynCron: Efficient Synchronization Support for Near-Data-Processing Architectures HPCA 2021

4. Ivan Fernandez, Richardo Quislant, <u>Christina Giannoula</u>, Mohammed Alser, Juan Gómez-Luna, Eladio Gutiérrez, Oscar Plata, Onur Mutlu

NATSA: A Near-Data Processing Accelerator for Time Series Analysis ICCD 2020

 Konstantinos Kanellopoulos, Nandita Vijaykumar, <u>Christina Giannoula</u>, Roknoddin Azizi, Skanda Koppula, Nika Mansouri Ghiasi, Taha Shahroodi, Juan Gómez-Luna, Onur Mutlu SMASH: Co-designing Software Compression and Hardware-Accelerated Indexing for Efficient Sparse Matrix Operations MICRO 2019

2. <u>Christina Giannoula*</u>, Foteini Strati*, Dimitrios Siakavaras, Georgios Goumas, Nectarios Koziris * Joint first authors

An Adaptive Concurrent Priority Queue for NUMA Architectures ACM Computing Frontiers (CF) 2019

1. Christina Giannoula, Georgios Goumas, Nectarios Koziris

Combining Hardware Transactional Memory with Read Copy Update to Speed Up Graph Coloring on Multicore Platforms

ISC HPC 2018

PREPRINT PUBLICATIONS

3. Konstantinos-Nikolaos Papadopoulos, <u>Christina Giannoula</u>, Nikolaos-Charalampos Papadopoulos, Nektarios Koziris, José M.G. Merayo, Dionisios N. Pnevmatikatos
Evaluating the Effectiveness of Microarchitectural Hardware Fault Detection for Application-Specific Requirements

Under Submission & arXiv 2024

Qidong Su, <u>Christina Giannoula</u>, Gennady Pekhimenko
 The Synergy of Speculative Decoding and Batching in Serving Large Language Models arXiv 2023

 Nika Mansouri Ghiasi, Mohammad Sadrosadati, Geraldo Oliveira, Konstantinos Kanellopoulos, Rachata Ausavarungnirun, Juan Gómez Luna, Aditya Manglik, João Ferreira, Jeremie Kim, <u>Christina Giannoula</u>, Nandita Vijaykumar, Jisung Park, Onur Mutlu

RevaMp3D: Architecting the Processor Core and Cache Hierarchy for Systems with Monolithically-Integrated Logic and Memory

RESEARCH PROPOSAL WRITING EXPERIENCE

- NSERC Discovery Research Proposal, \$265K fund for 5 years
 Proposal: Computer Systems for Efficient and Scalable Machine Learning
 PI: Prof. Gennady Pekhimenko, April 2024
- Mitacs Accelerate Research Proposal, \$500K fund for 3 years
 Proposal: System-Level Optimizations for Emerging Deep Learning Models on Modern Computing Systems

PI: Prof. Gennady Pekhimenko, January 2025

TEACHING EXPERIENCE

Principal Instructor and Lecturer:

⋄ Computer Organization (UofT, CSCB58, Undergraduate)

Winter 2024

- Co-teaching with Prof. Nandita Vijaykumar
- 78 Undergraduate Students
- 5 Teaching Assistants (TAs)
- ♦ Computer Organization (UofT, CSCB58, Undergraduate)

Summer 2023

- 49 Undergraduate Students
- 2 Teaching Assistants (TAs)
- Advanced Computing Systems: Code Optimization Techniques For Multiprocessor Architectures (NTUA, ECE Graduate-632, PhD-level)
 - Co-teaching with Prof. Georgios Goumas
 - 6 PhD Students

Teaching Assistant (TA):

♦ Operating Systems (NTUA, ECE-3.4.3136.6)	Spring 2022
♦ Parallel Processing Systems (NTUA, ECE-3.4.3257.9)	Fall 2021
♦ Operating Systems (NTUA, ECE-3.4.3136.6)	Spring 2021
⋄ Parallel Processing Systems (NTUA, ECE-3.4.3257.9)	Fall 2020
♦ Operating Systems (NTUA, ECE-3.4.3136.6)	Spring 2020
♦ Advanced Topics in Computer Architecture (NTUA, ECE-3.4.3352.8)	Spring 2020
⋄ Parallel Processing Systems (NTUA, ECE-3.4.3257.9)	Fall 2017
♦ Operating Systems (NTUA, ECE-3.4.3136.6)	Fall 2017
♦ Computer Architecture (NTUA, ECE-3.4.3357.5)	Fall 2017
♦ Operating Systems (NTUA, ECE-3.4.3136.6)	Fall 2016
♦ Operating Systems (NTUA, ECE-3.4.3136.6)	Fall 2015

RESEARCH ADVISING EXPERIENCE

Yintao He, PhD Research, ETH Zürich.

2024-Present

[ASPLOS 2025] Exploiting Dynamic Parallelism in LLM Decoding with a PIM-enabled Computing System

Pawan Kumar Sanjaya, PhD Research, University of Toronto

2024-Present

[IEEE CAL 2025] Guaranteeing Differentially Private Training at the Hardware Level

Cheng Chen, MSc Research, University of Toronto (now at Amazon)

2024-2025

[IISWC 2024] Regular-Low-Bitwidth Floating Point Quantization for Efficient and High-Quality Diffusion Models

Baorun Mu , PhD Research, University of Toronto [ICS 2024] <i>Sylva: Sparse Embedded Adapters via Hierarchical Approximate Second-Order Information</i>	2023–Present
Pavel Golikov , PhD Research University of Toronto Hardware Acceleration of Low-Bitwidth Quantized Large Language Models	2023–Present
Qidong Su , PhD Research, University of Toronto [MLSys 2025] Seesaw: High-throughput LLM Inference via Model Re-Sharding [arXiv 2023] The Synergy of Speculative Decoding and Batching in Serving Large Language Models	2023-Present
Zhanda Zhu , PhD Research, University of Toronto [EuroSys 2025] <i>Mist: Efficient Distributed Training of Large Language Models via Memory-Parallelism Co-Optimization</i>	2023–Present
Yubo Gao , PhD Research, University of Toronto [MLSys 2024] <i>Proteus: Preserving Model Confidentiality during Graph Optimizations</i>	2023–Present
Peiming Yang , PhD Research, University of Toronto [SIGMETRICS 2025] <i>Accelerating Graph Neural Networks on Real Processing-In-Memory Architectur</i>	2023–Present es
Jiacheng Yang, PhD Research, University of Toronto [EuroSys 2024] Minuet: Accelerating 3D Sparse Convolutions on Modern GPUs	2023–Present
Lukas Zink, MSc Research, ETH Zürich [ACM SRC Competition PACT 2023, First Place Winner] Towards Throughput-oriented Sparse Matte Multiplication on a Processing-in-Memory System	2023–2024 rix Vector
Konstantinos Papadopoulos, Diploma Thesis Research, ECE NTUA Hardware Fault Detection Methods in Modern Processors	2023–Present
Yu Xin Li, Undergraduate Research, University of Toronto [SIGMETRICS 2025] Quantization Methods for Graph Neural Networks	2023–2024
Thrasyvoulos-Fivos Iliadis , Diploma Thesis Research, ECE NTUA (Now PhD at NTUA) SecureBoost: Accelerating the Secure Boot Process in Modern Microcontrollers	2021–2023
Jonathan Tang, Undergraduate Research, University of Toronto [SIGMETRICS 2023] DaeMon: Architectural Support for Efficient Data Movement in Disaggregated S	2020–2022 ystems
Kailong Huang , Undergraduate Research, University of Toronto (Now AMD Engineer) [SIGMETRICS 2023] <i>DaeMon: Architectural Support for Efficient Data Movement in Disaggregated S</i>	2020–2022 ystems
Athanasios Peppas, Diploma Thesis Research, ECE NTUA [Journal of Supercomputing 2022] High-Performance and Balanced Parallel Graph Coloring on Multi-	2021–2022 core Platforms
Foteini Strati , Diploma Thesis Research, ECE NTUA (Now PhD at ETH Zürich) [ACM Computing Frontiers 2019] <i>High-Performance Concurrent Priority Queues for NUMA Archite</i>	2018–2019 ectures
Open-Source Projects	
A PyGim: https://github.com/CMII-SA FA RI/PyGim.git	

- PyGim: https://github.com/CMU-SAFARI/PyGim.git
 "PyGim: An Efficient Graph Neural Network Library for Real Processing-In-Memory Architectures", ACM Sigmetrics/POMACS 2025
- ♦ **ARC**: https://github.com/Accelsnow/gaussian-splatting-distwar.git
 - "ARC: Warp-level Adaptive Atomic Reduction in GPUs to Accelerate Differentiable Rendering", ASPLOS 2025
- ♦ **Sylva**: https://github.com/CentML/Sylva.git
 - "Sylva: Sparse Embedded Adapters via Hierarchical Approximate Second-Order Information", ICS 2024

- ♦ **Proteus**: https://github.com/proteus-mlsys24/mlsys24-artifact.git
 - "Proteus: Preserving Model Confidentiality during Graph Optimizations", MLSys 2024
- ♦ **Minuet**: https://github.com/UofT-EcoSystem/Minuet.git
 - "Minuet: Accelerating 3D Sparse Convolutions on GPUs", EuroSys 2024
- ♦ **SparseP**: https://github.com/CMU-SAFARI/SparseP.git
- "SparseP: Towards Efficient Sparse Matrix Vector Multiplication on Real Processing-In-Memory Architectures", ACM Sigmetrics/POMACS 2022
- ♦ **Prim**: https://github.com/CMU-SAFARI/prim-benchmarks.git
- "Benchmarking a New Paradigm: Experimental Analysis and Characterization of a Real Processing-in-Memory System", IEEE Access 2022
- ♦ NATSA: https://github.com/CMU-SAFARI/NATSA.git
 - "NATSA: A Near-Data Processing Accelerator for Time Series Analysis", ICCD 2020
- ♦ **SMASH**: https://github.com/CMU-SAFARI/SMASH.git
- "SMASH: Co-designing Software Compression and Hardware-Accelerated Indexing for Efficient Sparse Matrix Operations", MICRO 2019
- ♦ **ColorTM**: https://github.com/cgiannoula/ColorTM.git
 - "Combining HTM with RCU to Speed up Graph Coloring on Multicore Platforms", ISC HPC 2018
- "High-Performance and Balanced Parallel Graph Coloring on Multicore Platforms", Journal of Supercomputing 2022

PATENTS

- ♦ System and Method for Fine Tuning Large Language Models (LLMs) Using Sparse Embedded Adapters Via Hierarchical Approximate Second-Order Information, US Patent Application Filed June 2024
- System and Method for Efficient Large Scale Distributed Training, US Patent Application Filed August 2024
- ♦ System and Computer-Implemented Method for Preserving Model Confidentiality During Graph Optimizations, US Patent Application Filed October 2024

INVITED TALKS

System Software and Libraries for Sparse Computational Kernels in PIM Architectures • Memory-Centric Computing Systems Tutorial (with MICRO 2024), Invited Talk	November 2024
Let's Go Sparse: Towards Sparse-Aware Computing System Design	
 Meta, Sunnyvale, Virtually, Invited Talk 	August 2024
 University of Illinois Urbana-Champaign, Invited Talk 	June 2024
 Northwestern University, Invited Talk 	June 2024
 University of Michigan, Invited Talk 	June 2024
 University of Edinburgh, Virtually, Invited Talk 	May 2024
 University of California San Diego, Invited Talk 	May 2024
 Qualcomm Research Center, San Diego 	May 2024
Accelerating 3D Sparse Convolutions on GPUs	December 2023
Accelerating Deep Learning Training on Edge Devices	December 2023

DaeMon: Architectural Support for Efficient Data Movement in Fully Disaggregated Systems ◇ AMD California, Virtually, Invited Talk ◇ ETH Zürich, Virtually, Seminar Talk ◇ SIGMETRICS 2023, Orlando, USA, Conference Talk ◇ HCM Workshop (in conjunction with HPCA 2023), Montreal, Canada, Invited Talk	July 2023 July 2023 June 2023 February 2023
Accelerating Irregular Applications via Efficient Synchronization and Data Access Techniques	November 2022 September 2022
 SparseP: Towards Efficient Sparse Matrix Vector Multiplication on Real Processing-In-Memory Arc. ◇ Real PIM Tutorial (in conjunction with ISCA 2023) Orlando, USA, Invited Talk ◇ Real PIM Tutorial (in conjunction with HPCA 2023) Montreal, Canada, Invited Talk ◇ ISVLSI 2022, Virtually, Conference Talk ◇ SIGMETRICS 2022, Mumbai, India, Conference Talk ◇ ETH Zürich, Virtually, Processing-In-Memory Course Lecture ◇ Huawei Research & University of Edinburgh, Virtually 	June 2023 February 2023 July 2022 June 2022 May 2022 May 2022 May 2022
SynCron: Efficient Synchronization Support for Near-Data Processing Architectures ◇ ETH Zürich, Virtually, Ramulator Course Lecture ◇ AMD Research, Virtually ◇ ETH Zürich, Virtually, Cutting-Edge Research Lecture ◇ ETH Zürich, Virtually, Processing-In-Memory Course Lecture ◇ ETH Zürich, Virtually, Seminar Talk ◇ HPCA 2021, Virtually, Conference Talk ◇ Intel Labs, Virtually	May 2022 February 2022 December 2021 December 2021 September 2021 March 2021 April 2020
An Adaptive Concurrent Priority Queue for NUMA Architectures	April 2019
Employing Hardware Transactional Memory to Design a Balanced Graph Coloring Algorithm	November 2018
Combining HTM with RCU to Speed Up Graph Coloring on Multicore Platforms	January 2019 June 2018

SERVICE

Organization and Service Committees:

♦ Social Media Editor, ACM SIGMICRO

September 2023 - Present

- Program Chair, 4th Workshop on Heterogeneous Composable and Disaggregated Systems (HCDS) (in conjunction with ASPLOS 2025)
- Program Chair, 3rd Workshop on Heterogeneous Composable and Disaggregated Systems (HCDS) (in conjunction with ASPLOS 2024)
- ♦ Publicity Chair, ICCD 2024
- ♦ Research Adjudication Committee, Vector Institute AI Scholarship 2024
- ♦ Publicity Chair, HPCA 2024
- ♦ Publicity & Social Media Chair, MICRO 2023
- ♦ Publicity Chair, CompSys 2023 (in conjunction with IPDPS 2023)

Program Committee (PC) Member:

- ♦ Memory-Centric Computing Workshop Workshop 2025 (in conjunction with ASPLOS 2025)
- ♦ PACT 2024

- ♦ MLSys 2024
- ♦ HPCA 2024
- ♦ ASPLOS 2024
- ♦ EuroMLSys 2024 (in conjunction with EuroSys 2024)
- ♦ Young Architect Workshop (YArch) 2024 (in conjunction with ASPLOS 2024)
- ♦ AsHES (in conjunction with IPDPS 2024)
- ♦ DATE 2023
- ♦ FastPath 2022 (in conjunction with MICRO 2022)
- ♦ Shadow Program Committee Member, EuroSys 2021

External Reviewer Committee (ERC) Member:

- ♦ ASPLOS 2025
- ♦ ISCA 2024

Journal Referee:

- ♦ ACM TACO 2023
- Special Issue on Near-Memory and In-Memory, IEEE Transactions on Computers (TC) 2023

Artifact Evaluation Committee Member:

♦ MICRO 2022

SKILLS

Programming Languages/Frameworks: C, C++, Java, Python, Scala, SQL, MySQL, Javascript, Prolog, Linux bash scripting, MPI, OpenMP, Cilk, Intel TBB, Spark, PyTorch

Tools/Simulators: Intel Vtune, Git, PIN, NVIDIA Nsight Compute, Intel TSX, ZSim, Ramulator, Sniper

ACTIVITIES

 Member at University Dance Sector at the National University of Athens 	2016–2021
♦ Student Mentor at Unique Minds	2016-2017
⋄ Open Dialogue Team Member at Unique Minds	2016-2017
♦ Team Member at EESTEC LC Athens	2012-2017
⋄ Team Member at International IT Team (EESTEC LC Athens)	2016-2017
♦ Side Events Team Member at Job Fair Athens	2017-2018
♦ Live Promotion Team Member at Job Fair Athens	2015-2016
 Member at Design Team at Job Fair Athens Design team 	2014-2015
♦ Volunteer at TEDx National Technical University of Athens, Topic: Heuristics	2016-2017
 Singer at the University Choir of National Technical University of Athens 	2011–2017