Thaleia Dimitra Doudali

Assistant Professor at IMDEA Software Institute

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EDUCATION

Ph.D. in Computer Science Atlanta, GA, USA
Georgia Institute of Technology (Georgia Tech) 2015 - 2021
Advisor: Ada Gavrilovska
Diploma in Electrical and Computer Engineering Athens, Greece
National Technical University of Athens (NTUA) 2010 - 2015
Advisor: Nectarios Koziris

PROFESSIONAL EXPERIENCE

- **IMDEA Software Institute** Madrid, Spain
  Assistant Research Professor Oct. 2021 - Present
- **IIT NCSR Demokritos** Athens, Greece
  Visiting Researcher Summer 2022
- **Advanced Micro Devices** Bellevue, WA, USA
  Intern at AMD Research Summer 2018
- **VMWare** Palo Alto, CA, USA
  Intern at the Distributed Resource Scheduler Team Summer 2017
- **Dell EMC** Santa Clara, CA, USA
  Intern at the Data Domain File System - Garbage Collection team. Summer 2016

AWARDS

- Juan de la Cierva Postdoctoral Fellowship. 2021-2023
- Best Paper Award Finalist and Best PhD Forum Poster with Research Paper Award at HPDC 2019.
- Selected to participate in the Rising Stars in EECS 2020 academic workshop.
- Travel Grant Awards at OSDI 2021/2020/2016, ATC 2021/2020/2017, IEEE TCPP award for IPDPS 2019, SoCC 2018.
- A.G. Leventis Foundation Fellowship. 2018 - 2021

STUDENT SUPERVISION

Master's Thesis:
Javier Galindos (EIT Digital Master School) at IMDEA. Spring 2022

Undergraduate Diploma Thesis:
Aristotle Sibetheros (NTUA) at IMDEA. Spring 2022

THESIS COMMITTEES

Remote substitute member for the Ph.D. defense of Alejandro J. Calderón at Universitat Politecnica de Catalunya (UPC), July 2022.

TEACHING EXPERIENCE

Delivered guest lectures, designed and graded projects, interacted with students during office hours and online discussions for the Advanced Operating Systems graduate-level class (CS6210) at the Georgia Institute of Technology during the Spring 2017, 2019 semesters.

PUBLICATIONS

- Coeus: Clustering (A)like Patterns for Practical Machine Intelligent Hybrid Memory Management.
  Thaleia Dimitra Doudali, Ada Gavrilovska. In Proceedings of the 22nd IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing (CCGrid 2022).

- Toward Computer Vision-based Machine Intelligent Hybrid Memory Management.
  Thaleia Dimitra Doudali, Ada Gavrilovska. In Proceedings of the International Symposium on Memory Systems (MEMSYS 2021).

- Cori: Dancing to the Right Beat of Periodic Data Movements over Hybrid Memory Systems.
  Thaleia Dimitra Doudali, Daniel Zahka, Ada Gavrilovska. In Proceedings of the 35th IEEE International Parallel and Distributed Processing Symposium (IPDPS 2021).

- The Case for Optimizing the Frequency of Periodic Data Movements over Hybrid Memory Systems.
  Thaleia Dimitra Doudali, Daniel Zahka, Ada Gavrilovska. In Proceedings of the International Symposium on Memory Systems (MEMSYS 2020).

- Unexpected Performance of Intel DC Persistent Memory.
  Tony Mason, **Thaleia Dimitra Doudali**, Margo Seltzer, Ada Gavrilovska. In IEEE Computer Architecture Letters, vol.19, no.1, pp.55-58, 1 Jan.-June 2020.

- Kleio: a Hybrid Memory Page Scheduler with Machine Intelligence.
  Thaleia Dimitra Doudali, Sergey Blagodurov, Abhinav Vishnu, Sudhanva Gurumurthi, Ada Gavrilovska. In Proceedings of the 28th International Symposium on High-Performance Parallel and Distributed Computing (HPDC 2019).

- Mnemo: Boosting Memory Cost Efficiency in Hybrid Memory Systems.
  Thaleia Dimitra Doudali, Ada Gavrilovska. In proceedings of the 5th IEEE International Workshop on High-Performance Big Data, Deep Learning, and Cloud Computing (HPBDC 2019). In conjunction with the 33rd IEEE International Parallel and Distributed Processing Symposium (IPDPS 2019).

- CoMerge: Toward Efficient Data Placement in Shared Heterogeneous Memory Systems.
  Thaleia Dimitra Doudali, Ada Gavrilovska. In Proceedings of the International Symposium on Memory Systems (MEMSYS 2017).

SERVICE

Program Committees:
- EuroSys 2023, ASPLOS 2023.
- **PC Chair** of the COMPSYS workshop, co-located with IPDPS 2022.
- Selection committee for the 2022 EuroSys Needham dissertation award.
- SPMA and EuroSysML workshops, co-located with EuroSys 2022.
- PhD Symposium of EuroPar 2022.
- Shadow PC member at EuroSys 2020.

External Reviewing for Journals:
- IEEE Transactions on Computers (TC).
- ACM Transactions on Architecture and Code Optimization (TACO).

Conference Organization:
- Publicity team member for IC2E 2022.
- Social media chair for HPDC 2022.
- Session co-chair for DATE 2022.
- Session co-chair for one of the Ask Me Anything sessions at EuroSys 2021.

INVITED TALKS

- **Building Smart and Fast Systems Using Machine Learning and Computer Vision.**
  - Invited talk at IBM Research, Zurich, Switzerland. June 2022.
  - Invited talk by the Swiss chapter of Women in HPC at PASC 2022 in Basel, Switzerland. June 2022.
  - Invited talk at IIT NCSR Demokritos in Athens, Greece. June 2022.
  - Invited talk at the Barcelona Supercomputing Center, Spain. June 2022.
  - Invited talk at Huawei Research Center in Zurich, Switzerland. May 2022.
  - Invited talk at the Conferencias de Posgrado at UCM, Madrid, Spain. November 2021.
  - Talk at the Software Seminar Series (S3) at IMDEA Software Institute, Madrid, Spain. October 2021.
- **A picture is worth 1000.. features! Using Computer Vision alongside Machine Learning in Computer Systems.** Selected talk at the Wild and Crazy Ideas (WACI) session of ASPLOS 2022, Lausanne, Switzerland, March 2022.
- **Adding Machine Learning to the Management of Heterogeneous Resources.**
  - Invited talk at the HMEM workshop on Heterogeneous Memory Systems co-located with ICS 2022.
  - Invited talk at the International Workshop on Distributed Cloud Computing (DCC) 2021. June 2021.
  - Invited talk at Illinois Institute of Technology, Chicago, USA. April 2021.
  - Invited talk at IMDEA Software Institute, Madrid, Spain. March 2021.
- **Kleio: a Hybrid Memory Page Scheduler with Machine Intelligence.**
  - Invited talk at the Grascomp/EuroSys SPC joint workshop at UC Louvain, Belgium. February 2020.
  - Invited talk at the 5th Computing Systems Research Day at NTUA, Athens, Greece. January 2020.
  - Conference talk at the HPDC 2019 conference. June 2019.

DIVERSITY AND MENTORING

- **How to ride the research roller coaster: Effective Presentation Skills.** May 2022
  Seminar on how to give engaging presentations, including practical tips and tricks on creating slides, structuring a talk and being confident presenting and answering questions.
- **Mentor at a conference mentoring program.** March 2022
  Organized by the Computer-Architecture Student Association (CASA) during ASPLOS 2022.
- **Discussion with female researchers: why to consider a career in research.** February 2022
  Lead a panel discussion at IMDEA for the 2022 international day of women and girls in science.
- **Interview on current research agenda and inclusion efforts in academia.** December 2021
- **Mentor at a Speed Mentoring event.** December 2021
  Hosted by the ACM-W chapter of the Aristotle University of Thessaloniki, Greece.
- **Interview on how to bridge the gender gap in STEM.** November 2021
- **How to ride the research roller coaster: Managing emotional challenges.** November 2021
  Mentoring talk at IMDEA on how to deal with common challenges of working in research.
- **Interview on my academic job experience for the GAP Interview Series.** November 2021
  Hosted on YouTube by Manuel Rigger.
- **Panelist in an info session on how to apply to PhD programs.** April 2021
  Hosted by UC San Diego Computer Science.
- **The Four Life Quotes that Shaped my PhD Journey.** April 2020
  At "Illuminate Tech", an inspirational talk series organized by Georgia Tech SGA.
- **Executive board member of the Georgia Tech SCS Graduate Student Association.** 2020-2021
- **Executive board member of the Hellenic Society at Georgia Tech.** 2017-2021
- **Executive board member of the IEEE NTUA Student Branch.** 2012-2015

PATENTS

- **Techniques for Container Scheduling in a Virtual Environment.**
  Thaleia Dimitra Doudali, Zhelong Pan, Pranshu Jain. VMware, Inc. (Palo Alto, CA, USA). Publication date: Sep 21, 2021. Publication number: 20200019426.
- **Multi-instance Recurrent Neural Network Prediction.**
  Sergey Blagodurov, Thaleia Dimitra Doudali, Amin Farmahini Farahani. Advanced Micro Devices, Inc. (Santa Clara, CA, USA). Publication Date: Jun 18, 2020. Publication number: 20200193268.

- **Computer Resource Scheduling Using Generative Adversarial Networks.**
  Sergey Blagodurov, Abhinav Vishnu, Thaleia Dimitra Doudali, Jagadish B. Kotra. Advanced Micro Devices, Inc. (Santa Clara, CA, USA). Publication date: Dec 3, 2020. Publication number: 20200379814.