

Academic Personnel Short Profile / Short CV

University:	Cyprus University of Technology
Surname:	Herodotou
Name:	Herodotos
Rank/Position:	Assistant Professor
Faculty:	Faculty of Engineering and Technology
Department:	Department of Electrical Engineering, Computer Engineering and Informatics
Scientific Domain:	Compute Science / Database systems, large-scale data processing systems, cloud computing

Academic qualifications. List by highest qualification

Qualification	Year	Awarding Institution	Department	Thesis title (Optional Entry)
Ph.D.	2012	Duke University	Computer Science	Automatic Tuning of Data-Intensive Analytical Workloads
M.Sc.	2009	Duke University	Computer Science	zTuned: Automated SQL Tuning through Trial and (Sometimes) Error
B.Sc.	2007	University of Maryland, Baltimore County	Computer Science	

Employment history in Academic Institutions/Research Centers. List by the three (3) most recent

Period of employment		Employer	Location	Position
From	To			
2014	Present	Cyprus University of Technology	Limassol, Cyprus	Assistant Professor
2012	2014	Microsoft Research	Redmond WA, USA	Senior Research SDE
2011	2011	Yahoo! Research	Santa Clara CA, USA	Research Engineer Intern
2009	2009	Aster Data Systems	San Carlos CA, USA	Research Engineer Intern

**Key refereed journal papers, monographs, books, conference publications etc.
List the five (5) more recent and other five (5) selected (max total 10)**

Ref. Number	Year	Title	Other authors	Journal and Publisher / Conference	Vol.	Pages
1	2021	Trident: Task Scheduling over Tiered Storage Systems in Big Data Platforms.	H. Herodotou and E. Kakoulli	PVLDB	14 (9)	1570-1582
2	2021	Investigating Automatic Parameter Tuning for SQL-on-Hadoop Systems	E.R. Lucas Filho, E. Cunha de Almeida, S. Scherzinger, and H. Herodotou	Big Data Research	15	15 pages
3	2020	Internet of Ships: A Survey on Architectures, Emerging Applications, and Challenges	S. Aslam, M. Michaelides, and H. Herodotou	IEEE Internet of Things Journal		15 pages
4	2020	Hihooi: A Database Replication Middleware for Scaling Transactional Databases Consistently	M. A. Georgiou, A. Paphitis, M. Sirivianos, and H. Herodotou	IEEE Transactions on Knowledge and Data Engineering		17 pages
5	2020	A Survey on Automatic Parameter Tuning for Big Data Processing Systems	H. Herodotou, Y. Chen, and J. Lu.	ACM Computing Surveys	53 (43)	37 pages
6	2019	Automating Distributed Tiered Storage Management in Cluster Computing	H. Herodotou and E. Kakoulli	PVLDB	13 (1)	43-56
7	2018	PerfIso: Performance Isolation for Commercial Latency-Sensitive Services	S. Elnikety, M. Syamala, V. Narasayya, H. Herodotou, P. Tomita, A. Chen, J. Zhang, and J. Wang	USENIX ATC		519-532
8	2017	OctopusFS: A Distributed File System with Tiered Storage Management	E. Kakoulli and H. Herodotou	ACM SIGMOD		65-78
9	2014	Scalable Near Real-time Failure Localization of Data Center Networks	H. Herodotou, B. Ding, S. Balakrishnan, G. Outhred, and P. Fitter	ACM SIGKDD		1689-1698
10	2011	Profiling, What-if Analysis, and Cost-based Optimization of MapReduce Programs	H. Herodotou and S. Babu	PVLDB	4 (11)	1111-1122

Research Projects.				
List the five (5) more recent and other five (5) selected (max total 10)				
Ref. Number	Date	Title	Funded by	Project Role
1	2022-25	aerOS: Autonomous, scalable, tRustworthy, intelligent European meta Operating System for the IoT edge-cloud continuum	European Commission, Horizon Europe	Research Team Member
2	2021-23	SMML: Storage Data Flow Management based on Machine Learning	Huawei Technologies Inc.	Principal Investigator
3	2020-22	MARI-Sense: Maritime Cognitive Decision Support System	Cyprus Research and Innovation Foundation	Work Package Leader
4	2019-22	DESTINI: Smart Data ProcESSing and SysTEms of Deep INsIght	European Commission, Horizon 2020	Research Team Member
5	2019-21	STEAM: Sea Traffic Management in the Eastern Mediterranean	Cyprus Research and Innovation Foundation	Scientific Coordinator
6	2017-19	ENGINITE: ENGIneering and Industry Innovative Training for Engineers	Foundation for the Management of European Lifelong Learning Programmes	Research Team Member
7	2016-19	ENCASE: EnhaNcing seCurity And privacy in the Social wEb	European Commission, Horizon 2020	Member / Secondee
8	2015-19	STM: Sea Traffic Management Validation Project	EU Innovation and Networks Executive Agency (INEA)	Technical Coordinator for CUT
9	2016-18	NOTRE: Network for Social Computing Research	European Commission, Horizon 2020	Research Team Member
10	2015-17	Distributed Multi-tier Storage for Cluster Computing	Cyprus University of Technology, Starting Grant	Principal Investigator

Academic Consulting Services and/or Participation in Councils / Boards/ Editorial Committees. List the five (5) more recent				
Ref. Number	Period	Organization	Title of Position or Service	Key Activities
1	2022	International Workshop on Self-Managing Database Systems (SMDB)	General Chair	Organize the workshop, coordinate with Program Committee Chair to prepare program
2	2021	Frontiers in Big Data Journal	Lead Editor of Research Topic	Define topic, identify reviewers, assign papers to reviewers, write meta-reviews, and make decisions
3	2019-20 2020-21	International Workshop on Self-Managing Database Systems (SMDB)	Program Committee Chair	Identify reviewers, assign papers to reviewers, write meta-reviews, and make decisions
4	2019-20	IEEE International Conference on Data Engineering (ICDE)	Vice Program Committee Chair	Identify reviewers, assign papers to reviewers, write meta-reviews, and make decision recommendations
5	2019-20	46th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM)	Track Program Committee Chair	Identify reviewers, assign papers to reviewers, write meta-reviews, and make decisions

Awards / International Recognition (where applicable). List the five (5) more recent and other five (5) selected (max total 10)			
Ref. Number	Date	Title	Awarded by:
1	2018	AWS Cloud Credits for Research Grant	Amazon Web Services
2	2013	Jim Gray Doctoral Dissertation Award Honorable Mention	ACM SIGMOD
3	2012	Outstanding Ph.D. Dissertation Award in Computer Science	Duke University
4	2010	AWS Education Research Grant	Amazon Web Services
5	2008	Steele Endowed Fellowship	Duke University
6	2003	Cyprus-America Fulbright Scholarship	Fulbright
7	2003	President's Scholar Award	University of Maryland, Baltimore County

Other Achievements. List the five (5) more recent and other five (5) selected (max total 10)			
Ref. Number	Date	Title	Key Activities:
1	2022	Towards a Hybrid Cloud & Edge Orchestrator for Mining Exascale Distributed Streams	Keynote speech at the 13th IARIA International Conference on Cloud Computing, GRIDs, and Virtualization (Cloud Computing '22)
2	2021	OctopusFS: Automating Distributed Tiered Storage Management in Cluster Computing	Honored Speaker at Huawei Data Compression & Storage Systems Online Forum
3	2021	Hihooi: A Database Replication Middleware for Scaling Transactional Databases Consistently	Invited talk at the Advanced Data Management Technologies (ADMT) Lab at University of Pittsburgh
4	2020	Automating Distributed Tiered Storage Management in Cluster Computing	Invited talk at Telefónica Investigación y Desarrollo (Telefónica I+D) in Barcelona, Spain
5	2019	A Comparison of Self-configuring Approaches for Big Data Analytics Systems	Invited talk at the Data Management Day at the University of Cyprus (DMD@UCY)
6	2019	e-Now: An ocean supply chain	Invited presentation and participation at the panel "#closerthanyouthink" of the 3rd Cyprus Shipping Chamber e-Navigation Seminar (CSC)
7	2018	Self-configuring Big Data Analytics Systems on the Cloud	Keynote speech at the 10th IEEE International Conference on Cloud Computing Technology and Science (CloudCom '18)
8	2017	Multi-tiered Storage Management for Cluster Computing	Invited talk at the Data-Intensive Applications and Systems Laboratory of École Polytechnique Fédérale de Lausanne (EPFL)
9	2016	Cost-Based Optimization of Configuration Parameters and Cluster Sizing for Hadoop	US Patent 9367601
10	2015	Logipaignion 2015	Organized the annual computer game development competition for middle and high school students in Cyprus