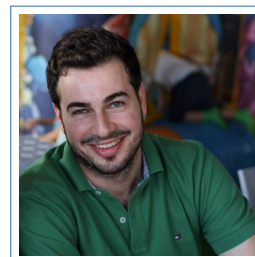


Demetris Trihinas

Curriculum Vitae

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🌐 <http://dtrihinas.info>
📅 Date of Birth: July 5, 1987
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🇨🇾🇨🇦 Nationality: Cypriot/Canadian



I'm currently a Full-Time Faculty Member at the Department of Computer Science, University of Nicosia ([UNIC](#)) and also a Senior Member at the University's Artificial Intelligence Lab ([AILab](#)). Previously, I was an Adjunct Lecturer and Postdoctoral Fellow at the Department of Computer Science, University of Cyprus ([UCY](#)). As a Postdoc, I was associated with the Laboratory for Internet Computing ([LIInC](#)), University of Cyprus. My research interests include Distributed and Internet Computing with particular focus in Big Data Management, Data Visualization and Data Mining, over Cloud, IoT and Edge Computing topologies. My PhD dissertation targeted developing low-cost probabilistic and adaptive learning models for approximate monitoring in order to improve energy-efficiency and reduce both the volume and velocity of data generated and consumed by IoT services. For the research conducted during my doctoral studies, I was selected by the Heidelberg Laureate Forum as one of the 100 young promising researchers in Computer Science for 2015. I additionally hold a MSc in Computer Science from the University of Cyprus and a Dipl.-Ing in Electrical and Computer Engineering from the National Technical University of Athens (NTUA). I have extensive experience in European research and innovation projects where I participated as a Work Package Leader and Senior Researcher in multiple projects (e.g., Unicorn H2020, PaaSport FP7, CELAR FP7) funded under the European Commission FP7 and H2020 schemes. Additionally, I'm the developer of the open-source JCatascopia cloud monitoring system and the AdaM framework for IoT devices. Also, I'm an active contributor to the StreamSight framework for query-driven analytics for IoT services, and to the Cloud Application Management Framework (CAMF) which is an official Eclipse Foundation project. My work is published in IEEE/ACM journals and conferences such as Trans. on Services Computing (TSC), Trans. on Cloud Computing (TCC), Internet Computing, INFOCOM, ICDCS, BigData, CCGrid, UCC, IC2E and ICSOC.

Education

- Jan 2015 – **PhD in Computer Science**, *University of Cyprus*.
 - Dec 2017 Thesis: Low-Cost Approximate and Adaptive Monitoring Techniques ([pdf](#))
Supervisors: Dr. Marios Dikaiakos & Dr. George Pallis
- Jan 2013 – **Master (MSc) in Computer Science**, *University of Cyprus*.
 - Dec 2014 Grade: 8.79/10, **Best Post-Graduate Student Award**
Thesis: Monitoring Elastically Adaptive Cloud Services ([pdf](#))
Supervisors: Dr. Marios Dikaiakos & Dr. George Pallis
- Sep 2007 – **Dipl.-Ing. in Electrical and Computer Engineering**, *National Technical University of Athens (NTUA)*.
 - Nov 2012 Grade: 8/10

Thesis: Research and Development of a Web Service for Data-Intensive Storage Clouds ([pdf](#))

Supervisor: Dr. Theodora Varvarigou

Work Experience in Academia

Sep 2018 – Present **Full-Time Faculty (Rank Lecturer)**, *Department of Computer Science, University of Nicosia*.

Specialization: Big Data Management and Data Science.
Senior member of the Artificial Intelligence Lab.

Nov 2017 – Present **Postdoctoral Researcher**, *Laboratory for Internet Computing, University of Cyprus*.

Senior Researcher and WP Leader, for **Unicorn**, an EU H2020 co-funded project aiming to simplify the design, deployment and management of secure and elastic -by design- multi-cloud services. Specifically, Unicorn enables continuous orchestration and automatic optimization of portable and dynamic cloud services running on virtual instances or micro-execution containers for increased security, data protection privacy and vast resource (de)-allocation. In this project, I lead the development of a fully automated decision-making service capable of integrating intelligent learning models to scale micro-services across multi-cloud execution environments based on various optimization strategies after analysing and correlating application and underlying infrastructure behavior data. I also actively contribute to the distributed stream processing of monitoring data to extract high-level analytic insights from the behavior and execution of microservices deployed across multi-cloud sites.
Project completion: Jan 2020.

Jan 2018 – Jun 2018 **Visiting Teaching Staff (Adjunct Lecturer)**, *Department of Computer Science, University of Cyprus*.

Principal Lecturer for the course CS-233: Object-Oriented Programming.

Nov 2012 – Oct 2017 **Researcher**, *Laboratory for Internet Computing, University of Cyprus*.

Contributed to the following research projects for their entire duration:

- **PaaSport**, an EU FP7 co-funded project which has developed a semantically-enhanced marketplace for interoperable Platform-as-a-Service offerings. In this project I lead the development of the PaaS monitoring system and the intelligent SLA enforcement, alerting and violation detection system.
- **CELAR** (Cloud ELAsticity pRovisioning), an EU FP7 co-funded project which has developed a fully automated multi-grained platform that elastically provisions resources for horizontally and vertically scalable elastic cloud applications. In this project I lead the development of the elastic cloud monitoring system and I have worked in the definition and development of the algorithms part of the intelligent decision-making module.

Jun 2011 – Apr 2012 **Junior Researcher**, *Distributed Knowledge and Media Systems Group - National Technical University of Athens (NTUA)*.

- **Vision Cloud**, an EU co-funded FP7 project dedicated to developing interoperable data-intensive storage services for cloud environments. In this project I worked on developing a flexible and platform-agnostic web application for visualizing data operations in storage cloud services.

Awards and Honors

2019 **First Place - People's Award for Research** at the Fourth Innovation and Entrepreneurship Forum Cyprus (IEF 2019): "StreamSight, a query-driven framework for modelling and extracting analytic insights from IoT services".

- 2015 **Heidelberg Laureate Forum** - Selected as one of the top 100 young researchers in the field Computer Science: "Adaptive Learning Models for Heterogeneous Cloud and IoT Services".
- 2014 **Best Post-Graduate Student Award** - School of Pure and Applied Sciences, University of Cyprus.
- 2014 **Best Paper Award** - For the paper entitled "ADVISE – a Framework for Evaluating Cloud Service Elasticity Behavior" at the 12th International Conference on Service Oriented Computing (ICSOC 2014), full paper acceptance rate 15%.
- 2014 **Unica Student Forum** - Selected as a delegate to represent the University of Cyprus at the Unica Student Conference 2014.

Teaching Experience and Mentoring

Teaching

- Principal Lecturer **COMP399: Introduction to Data Science**, University of Nicosia, Students: 19, Spring 2019. This course was introduced to the department curriculum by me.
- COMP370: Algorithms**, University of Nicosia, Students: 33, Spring 2019.
- COMP111: Programming Principles I**, University of Nicosia, Students: 48, Fall 2018.
- COMP116: Software Development Lab I**, University of Nicosia, Students: 18, Fall 2019.
- Previously Taught **CS233: Object-Oriented Programming**, University of Cyprus, Students: 57, Spring 2018.
- Under-Development Courses **COMP548: Big Data Management and Processing**, MSc in Data Science, University of Nicosia.
- COMP240: Data Programming**, BSc in Data Science, University of Nicosia.
- COMP342: Data Visualization**, BSc in Data Science, University of Nicosia.
- Teaching Assistant **CS451: Data-Mining on the Web**, University of Cyprus, Spring 2017

Mentoring

- Current One student working on his MSc entitled "Query-Driven Analytics for IoT Services" and one student working on her BSc thesis which targets developing a data analytics framework for extracting insights over blockchain platforms.
- Past Two students working on their MSc thesis, one related to developing semi-supervised learning models for ϵ -optimal cloud application resource allocation, and the other, Event Detection and Labeling from OSN Data Streams.
Six students working on their Bachelor (BSc) thesis. Two of these students worked on developing data modelling and data mining techniques for heterogeneous IoT services, three of these students have worked on developing Eclipse IDE plugins for supporting the development of cloud services while one student worked in developing learning models for load-balancing large-scale data streaming engines (i.e. Apache Spark).

Student Projects Two undergrad students (2nd and 3rd year) volunteered to worked on developing a safe browsing application for children to use online social networks without facing hate speech and bullying.

Funding and Proposal Development

- 2019 **iDataPlace: a data sharing platform to support the emergence of industrial data economy.** Co-funded by European Commission under H2020, 4.9M euros (449K UNIC budget), WP Leader, Attributed as Proposal Author - Scientific Excellence, proposal submitted under ICT-13-H2020.
- 2019 **RAINBOW: An Open and Trusted Fog Computing Platform for scalable and heterogeneous IoT Services and Cross-Cloud Applications.** Co-funded by European Commission under H2020, Nov. 2019 - Oct. 2022, 4.6M euros (658K allocated to UCY), WP Leader, Attributed as Proposal Author - Scientific Excellence.
- 2018 **Rhino: a Framework for Multi-Cloud Data Analytics.** Funded by Cyprus Research Foundation, Sep. 2018 - Dec. 2019, 200k euros (85K allocated to UCY), WP Leader and Senior Researcher, Attributed as Proposal Author.
- 2017 **Unicorn: a Novel Framework for Multi-Cloud Services Development, Orchestration, Deployment and Continuous Management.** Co-funded by European Commission under H2020, Jan. 2017 - Dec. 2019, 4.1M euros (675K allocated to UCY), WP Leader and Senior Researcher, Attributed as Proposal Author - Scientific Excellence.

Scientific Publications (All Peer Reviewed)

Journal and Magazine Articles

- 2019 **Correlation Analysis of Forecasting Methods: The Case of the M4 Competition.** Agathangelou, P.; Trihinas, D.; and Katakis, I. **International Journal of Forecasting**, Jul., 2019.
- 2018 **DevOps as a Service: Pushing the Boundaries of Microservice Adoption.** Trihinas, D.; Tryfonos, A; Dikaiakos, M. D.; and Pallis, G. **IEEE Internet Computing**, vol. 22, no. 3, pp. 65-71, May./Jun. 2018.
- 2018 **Low-Cost Adaptive Monitoring Techniques for the Internet of Things.** Trihinas, D.; Pallis, G.; and Dikaiakos, M. D. **IEEE Transactions on Services Computing**, 2018
- 2016 **Monitoring Elastically Adaptive Cloud Services.** Trihinas, D.; Pallis, G.; and Dikaiakos, M. D. **IEEE Transactions on Cloud Computing**, 2016.
- 2015 **Enabling Interoperable Cloud Application Management through an Open Source Ecosystem.** Loulloudes, N.; Sofokleous, C.; Trihinas, D.; Dikaiakos, M. D.; and Pallis, G. **IEEE Internet Computing**, 19(3):54–59. 2015.
- 2015 **Evaluating cloud service elasticity behavior.** Copil, G.; Trihinas, D.; Truong, H.; Moldovan, D.; Pallis, G.; Dustdar, S.; and Dikaiakos, M. D. **International Journal of Cooperative Information Systems**, November/December, 2015.

Conference Papers

- 2020 **[Submitted] A Self-stabilizing Control Plane for the Edge.** Georgiou, Z.; Trihinas, D.; Georgiou, C.; Pallis, G. and Schiller, E.M.. In **IEEE International Conference on Computer Communications (INFOCOM 2020)**, Beijing, China, Apr., 2020.
- 2019 **Datachain: A Query Framework for Blockchains.** Trihinas, D.. In **Proceedings of the 11th International Conference on Management of Digital EcoSystems (ACM MEDES 2019)**, Nov, 2019.
- 2019 **Query-Driven Descriptive Analytics for IoT and Edge Computing.** Symeonides, M.; Trihinas, D.; Georgiou, Z; Pallis, G. and Dikaiakos, M. D.. In **Proceedings of the 2019 International Conference on Cloud Engineering (IEEE IC2E '19)**, Prague, Czech Republic, Jun, 2019.
- 2018 **StreamSight: A Query-Driven Framework for Streaming Analytics in Edge Computing.** Georgiou, Z.; Symeonides, M. Trihinas, D.; Pallis, G. and Dikaiakos, M.D.. In **Proceedings of the 11th IEEE/ACM International Conference on Utility and Cloud Computing (IEEE/ACM UCC '18)**, Zurich, Switzerland, Dec, 2018.
- 2018 **ATMoN: Adapting the “Temporality” in Large-Scale Dynamic Networks.** Trihinas, D.; Chiroque, L; Pallis, G.; Anta Fernandez, A; and Dikaiakos, M. D. In **2018 IEEE International Conference on Distributed Computing Systems (IEEE ICDCS 2018)**, Vienna, Austria, Jul, 2018
- 2017 **Improving Rule-Based Elasticity Control by Adapting the Sensitivity of the Auto-Scaling Decision Timeframe.** Trihinas, D.; Georgiou, Z; Pallis, G.; and Dikaiakos, M. D. Third International Conference on Algorithmic Aspects of Cloud Computing (ALGO CLOUD 2017), Sep, Vienna, Austria, 2017.
- 2017 **ADMin: Adaptive Monitoring Dissemination for the Internet of Things.** Trihinas, D.; Pallis, G.; and Dikaiakos, M. D. In **2017 IEEE International Conference on Computer Communications (INFOCOM 2017)**, May, Atlanta, USA, 2017.
- 2015 **AdaM: an Adaptive Monitoring Framework for Sampling and Filtering on IoT Devices.** Trihinas, D.; Pallis, G.; and Dikaiakos, M. D. In **2015 IEEE International Conference on Big Data (IEEE BigData 2015)**, October, Santa Clara, USA, 2015.
- 2015 **Enabling Cloud Application Portability,** D. Antoniadou, N. Loulloudes, A. Foudoulis, C. Sophokleous, D. Trihinas, G. Pallis, M. Dikaiakos, H. Kornmayer, **Proceedings of the 8th IEEE/ACM International Conference on Utility and Cloud Computing (IEEE/ACM UCC 2015)**, Limassol, Cyprus, Dec 2015.
- 2014 **[Best Paper] ADVISE – a Framework for Evaluating Cloud Service Elasticity Behavior.** Copil, G.; Trihinas, D.; Truong, H.; Moldovan, D.; Pallis, G.; Dustdar, S.; and Dikaiakos, M. D. In the **12th International Conference on Service Oriented Computing (ICSOC 2014)**. November, 2014.

- 2014 **c-Eclipse: An Open-Source Management Framework for Cloud Applications.** Sofokleous, C.; Loulloudes, N.; Trihinas, D.; Pallis, G.; and Dikaiakos, M. In the **20th European Conference on Parallel Processing (EuroPar 2014)**. August, 2014
- 2014 **JCatascopia: Monitoring Elastically Adaptive Applications in the Cloud.** Trihinas, D.; Pallis, G.; and Dikaiakos, M. D. In the **14th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID 2014)**, pages 226-235, May, Chicago, IL, USA, 2014.

Workshops and Demos

- 2014 **[Demo Paper] Managing and Monitoring Elastic Cloud Applications.** Trihinas, D.; Sofokleous, C.; Loulloudes, N.; Foudoulis, A.; Pallis, G.; and Dikaiakos, M. D. In the **14th International Conference on Web Engineering, (ICWE 2014)**, July, Toulouse, France, 2014.

Tutorials

- 2018 **Designing Scalable and Secure Microservices by Embracing DevOps-as-a-Service Offerings.** Trihinas, D.; Tryfonos, A.; and Dikaiakos, M. D. In **2018 IEEE International Conference on Cloud Computing Technology and Science (CloudCom)**, Dec. 2018.

Standardization Committees

- 2018 - to date **CWA Specification:** [tentative title] European Specification for DevOps Interoperable Measurements over Containerized Execution Environments.
- 2015-2017 **DIN SPEC 91337:** Application Management Interface for Cloud Application Platforms.

Invited Talks & Colloquia

- 2019 **Telling a Story -or Even Propaganda- Through Data Visualization.** Trihinas, D, Disinformation Battles - Lead Cyprus 2019, Limassol, Cyprus, July, 2019 (presentation available [online](#)).
- 2019 **An Introduction to Machine Learning.** Trihinas, D, ACCA Annual European Conference for Accountants, Paphos, Cyprus, May 2019 (presentation available [online](#)).
- 2019 **Visualizing and Interacting with Big Data.** Trihinas, D, 11th Student Conference in Informatics, Thessaloniki, Greece, Mar 2019 (presentation available [online](#)).
- 2018 **Storytelling through Data: From Mining Raw Data to Story Visualization.** Trihinas, D, Techcamp Cyprus, Nicosia, Cyprus, Dec. 2018 (presentation available [online](#)).
- 2017 **Low-Cost Approximate and Adaptive Monitoring Techniques.** Trihinas, D, Technical University of Berlin (TUB), Berlin, Germany, Mar 2017.
- 2016 **Adaptive Monitoring for the Internet of Things.** Trihinas, D, Hellenic Data Management Symposium (HDMS 2016), Athens, Greece, Jul 2016.

- 2014 **Monitoring Elastic Cloud Services**, D. Trihinas, Advanced School on Service Oriented Computing (SummerSoc 2014), Crete, Greece, Jul 2014 (presentation available in [pdf](#) and [video](#)).

Communities and Service

Conference Organization

- 2019 **Organizing Committee** Panhellenic Conference on Informatics (PCI 2019), Nov 2019.
- 2019 **Organizing Committee** IEEE/ACM International Symposium in Cluster, Cloud, and Grid Computing (CCGrid 2019), May 2019.

Communities

ACM Member (since 2019)
IEEE Member (since 2015)
Cyprus Computer Society (since 2014)
Cyprus Entrepreneurship Link (since 2018).

Article and Paper Reviewing

Regular Reviewer for IEEE Transactions on Cloud Computing (TCC), IEEE Transactions on Big Data (TBD), IEEE Transactions on Service Computing (TSC), IEEE Transaction on Distributed and Parallel Systems (TDPS), ACM Transactions of Internet Technologies (TOIT) and Computing Surveys (CSUR), and Springer Computing.

Regular Reviewer for IEEE/ACM conferences such as BigData, INFOCOM, CCGrid, CloudCom, MASCOTS, IC2E, UCC, Edge Computing, WI, and WISE.

Language Skills

English Excellent read, write and oral skills (GCE and IGCSE)
Greek Excellent read, write and oral skills

References

Dr. George Pallis (Assistant Professor) - PhD Advisor

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Royal Institute of Technology (KTH), Sweden
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