

Costantinos Costa

(Curriculum Vitae)

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I. RESEARCH INTERESTS

Data Management and Mobile Computing, particularly distributed query processing for spatial and spatio-temporal datasets.

II. EDUCATION

M.Sc. Computer Science, University of Cyprus 2011-2013
Thesis: Scalable Continuous All k Nearest Neighbors Queries

B.Sc. Computer Science, University of Cyprus 2007-2011
Thesis: SmartTrace: A Distributed Spatio-Temporal Similarity Search Framework using Android-based Smartphone

III. ACADEMIC APPOINTMENTS

Ph.D. Candidate, Dept. of Computer Science, University of Cyprus, Cyprus 09/2013-current

Research Assistant, DMSL Lab, University of Cyprus, Cyprus 2010-current

Teaching Assistant, University of Cyprus, Cyprus 2011-2015

Academic Collaborator, University of Cyprus, Nicosia, Cyprus 2009-2013

IV. PUBLICATIONS

Google Scholar Citations: 99; h-index¹: 5; i10-index²: 5

JOURNAL AND MAGAZINE PAPERS

J3. “Crowdsourcing Emergency Data in Non-Operational Cellular Networks”, Georgios Chatzimilioudis, **Constantinos Costa**, Demetrios Zeinalipour-Yazti, Wang-Chien Lee, **Information Systems (InfoSys)**, Special Issue on Large-Scale Data Management for Mobile Applications, Vol. 64, pp. 292 - 302, Oxford, UK, **2017**.

J2. “Distributed In-Memory Processing of All k Nearest Neighbor Queries”, Georgios Chatzimilioudis, **Constantinos Costa**, Demetrios Zeinalipour-Yazti and Wang-Chien Lee and Evaggelia Pitoura, **Transactions on Knowledge and Data Engineering**

¹h-index is the largest number h such that h publications have at least h citations.

²i10-index is the number of publications with at least 10 citations.

(TKDE), IEEE Computer Society, Volume 28, Issue 4, Pages: 925-938, Los Alamitos, CA, USA, 2016.

- J1. “Crowdsourced Trajectory Similarity with Smartphones”,
Demetrios Zeinalipour-Yazti, Christos Laoudias, **Constantinos Costa**, Michalis Vlachos, Dimitrios Gunopulos, **IEEE Transactions on Knowledge and Data Engineering (TKDE)**, IEEE Computer Society, Volume 25, Pages: 1240-1253, Los Alamitos, CA, USA, 2013.

CONFERENCE AND WORKSHOP PAPERS

- C13. “Decaying Telco Big Data with Data Postdiction”,
Constantinos Costa, Andreas Charalampous, Andreas Konstantinidis, Demetrios Zeinalipour-Yazti, and Mohamed F. Mokbel, *Proceedings of the 19th IEEE International Conference on Mobile Data Management, (MDM 2018)*, 10 pages, June 25 - June 28, 2018, AAU, Aalborg, Denmark, 2018.
- C12. “Telco Big Data: Current State & Future Directions”,
Constantinos Costa and Demetrios Zeinalipour-Yazti, *Proceedings of the 19th IEEE International Conference on Mobile Data Management, (MDM 2018)*, 4 pages, June 25 - June 28, 2018, AAU, Aalborg, Denmark, 2018.
- C11. “FMS: Managing Crowdsourced Indoor Signals with the Fingerprint Management Studio”,
Marileni Angelidou, **Constantinos Costa**, Artyom Nikitin and Demetrios Zeinalipour-Yazti, *Proceedings of the 19th IEEE International Conference on Mobile Data Management, (MDM 2018)*, 2 pages, June 25 - June 28, 2018, AAU, Aalborg, Denmark, 2018.
- C10. “TBD-DP: Telco Big Data Visual Analytics with Data Postdiction”,
Constantinos Costa, Andreas Charalampous, Andreas Konstantinidis, Demetrios Zeinalipour-Yazti, and Mohamed F. Mokbel *Proceedings of the 19th IEEE International Conference on Mobile Data Management, (MDM 2018)*, 2 pages, June 25 - June 28, 2018, AAU, Aalborg, Denmark, 2018.
- C9. “Towards Real-Time Road Traffic Analytics using Telco Big Data”,
Constantinos Costa, Georgios Chatzimilioudis, Demetrios Zeinalipour-Yazti and Mohamed F. Mokbel, *Proceedings of the 11th Intl. Workshop on Real-Time Business Intelligence and Analytics (BIRTE 2017)*, collocated with VLDB 2017, pp. 5:1–5:5, ISBN: 978-1-4503-5425-7/17/08, Munich, Germany, August 28, 2017.
- C8. “Efficient Exploration of Telco Big Data with Compression and Decaying”,
Constantinos Costa, Georgios Chatzimilioudis, Demetrios Zeinalipour-Yazti, Mohamed F. Mokbel, *Proceedings of the 33rd International Conference on Data Engineering (ICDE 2017)*, 12 pages, IEEE Press, San Diego, CA, USA, April 19-22 2017.
- C7. “SPATE: Decaying and Exploration of Telco Big Data”,
Constantinos Costa, Georgios Chatzimilioudis, Demetrios Zeinalipour-Yazti, Mohamed F. Mokbel, Demo at *Proceedings of the 33rd International Conference on Data Engineering (ICDE 2017)*, 2 pages, IEEE Press, San Diego, CA, USA, April 19-22 2017.
- C6. “Distributed In-Memory Processing of All k Nearest Neighbor Queries (Extended Abstract)”,
Georgios Chatzimilioudis, **Constantinos Costa**, Demetrios Zeinalipour-Yazti and Wang-Chien Lee and Evaggelia Pitoura, *Proceedings of the 32nd International Conference on Data Engineering (ICDE 2016)*, Helsinki, Finland, May 16-20, Pages: x, 2016.
- C5. “Rayzit: An Anonymous and Dynamic Crowd Messaging Architecture”,
Constantinos Costa, Chrysovalantis Anastasiou, Georgios Chatzimilioudis and Demetrios

Zeinalipour-Yazti *Proceedings of the 3rd IEEE International Workshop on Mobile Data Management Mining and Computing on Social Networks collocated with IEEE MDM '15 (Mobi-social 2015)*, Pittsburgh, PA, USA, July 15-18, 978-1-4799-9972-9/15, IEEE Press, Volume 2, pp. 98-103, **2015**.

- C4. “Managing Smartphone Testbeds with SmartLab”**, George Larkou, **Constantinos Costa**, Panayiotis K. Andreou, Andreas Konstantinides and Demetrios Zeinalipour-Yazti *Proceedings of the 27th USENIX Large Installation System Administration Conference (LISA 2013)*, Pages: 115-132, ISBN: 978-1-931971-05-8, Washington D.C., USA, **2013**.
- C3. “Demo: A Programming Cloud of Smartphones”**, Andreas Konstantinidis, **Constantinos Costa**, George Larkou and Demetrios Zeinalipour-Yazti, *The 10th International Conference on Mobile Systems, Applications and Services (MobiSys 2012)*, Low Wood Bay, Lake District UK, June 25 - 29, Pages: 465-466, ISBN: 978-1-4503-1301-8, **2012**.
- C2. An Indoor Trajectory Comparison Framework for Android Smartphones**, Christos Laoudias, **Constantinos Costa**, Demetrios Zeinalipour-Yazti, Christos G. Panayiotou, Demo at the International Conference on Indoor Positioning and Indoor Navigation (**IPIN 2011**), Guimares, Portugal, 21-23 Sept. **2011**.
- C1. “SmartTrace: Finding Similar Trajectories in Smartphone Networks without Disclosing the Traces”**, **Constantinos Costa**, Christos Laoudias, Demetrios Zeinalipour-Yazti, Dimitrios Gunopulos Demo at 27th International Conference on Data Engineering March (**ICDE 2011**), ISBN 978-1-4244-8958-9, pp. 1288-1291, IEEE Press, April 11-16, Hannover, Germany, **2011**, [Acceptance Rate: **31% (21/67)**].

THESES

- T2. “Scalable Continuous All k Nearest Neighbors Queries”**, **Constantinos Costa**, M.Sc. Thesis, *Dept. of Computer Science, University of Cyprus*, August **2013**.
- T1. “SmartTrace: A Distributed Spatio-Temporal Similarity Search Framework using Android-based Smartphones”**, **Constantinos Costa**, B.Sc. Thesis, *Dept. of Computer Science, University of Cyprus*, June **2011**.

GREEK CONFERENCES

- G4. “Distributed In-Memory Processing of All k Nearest Neighbor Queries”**, Georgios Chatzimilioudis, **Constantinos Costa**, Demetrios Zeinalipour-Yazti and Wang-Chien Lee and Evaggelia Pitoura, *The 14th Hellenic Data Management Symposium (HDMS 2016)*, Athens, Greece, July 28-29, **2016**. (unofficial proceedings)
- G3. “SmartTrace: Finding Similar Trajectories in Smartphone Networks without Disclosing the Traces”**, **Constantinos Costa**, Christos Laoudias, Demetrios Zeinalipour-Yazti, Dimitrios Gunopulos Demo at *The 10th Hellenic Data Management Symposium (HDMS 2011)*, Athens, Greece, June 17-18, **2011** (unofficial proceedings).
- G2. “PEONY:Software for image analysis in Nuclear Medicine ”**, Isabelle Chrysanthou-Bauster, Charalampos Yiannakkaras, Ourania Demetriadou, Yiannis Parpottas, Stelios Christofides, **Costa Constantinos**, Marta Wasilewska-Radwanska, International Conference Image Optimisation in Nuclear Medicine, Atlantica Aeneas Resort, Ayia Napa, Cyprus, March 23rd - 26th, **2011**.

- G1. “A Distributed Spatio-Temporal Similarity Search Framework using Android-based Smartphones (demo)”**,
Constandinos Costa, Constandinos Christoforou, George Nicolaidis, Diomidis Papadiomidous, Christos Laoudias, Demetrios Zeinalipour-Yazti *The 9th Hellenic Data Management Symposium (HDMS 2010)*, Ayia Napa, Cyprus, June 30 - July 3, **2010** (unofficial proceedings).

PRESENTATIONS

- **Presentation**, “*Anyplace Indoor Information Service*”, Symposium on Challenges of Fingerprinting in Indoor Positioning and Navigation, Open University of Catalonia, Barcelona, Spain, May 3, **2016**.
- **Presentation**, “*Managing Smartphone Testbeds with SmartLab*”, 27th USENIX Large Installation System Administration Conference ’ (LISA ’13), Washington D.C., USA, November 7, **2013**.
- **Presentation**, “*Trajectory Similarity with SmartTrace*”, Final Conference of MOVE COST Action IC903, Vienna, Austria, Sept 30 - Oct 1, 2013, October 1, **2013**.
- **Presentation**, “*Data Management in Smartphone Networks (for High School Students)*”, 2nd Computer Science Day for High School Students, University of Cyprus, Nicosia, Cyprus, March 19, **2011**.

V. RESEARCH AND DEVELOPMENT PROJECTS

- **2016 (PI): New Researcher Program**, University of Cyprus, Ph.D. Fellowship for C. Costa, Advisor: Demetrios Zeinalipour-Yazti.
- **06/2015-06/2016 (Research Assistant)**: “Big Data Processing in Telecommunication Datacenters”, MTN Cyprus Ltd., Cyprus.
- **2014 (Young Researcher)**: “New Researcher Program”, University of Cyprus, PhD Fellowship for C. Costa, Advisor: Demetrios Zeinalipour-Yazti.
- **01/2014-12/2014 (Research Assistant)**: “Spatio-Temporal Mobile Data Management”, Geomatic Technologies Ltd., Cyprus.
- **11/2012-12/2013 (Research Assistant)**: “AppCampus Award: Rayzit”, Industrial Grant by Aalto University, Microsoft, Nokia.

VI. DEPARTMENTAL SERVICE

- **Evaluator/ Organizer**, 6th National Logipaigion Contest for Elementary and High School Students,

VII. PROFESSIONAL ACTIVITY & MEMBERSHIPS

- **Organizing Committee Member**:
 - **Webmaster** 3rd International Workshop On Human Mobility Computing and Privacy (HuMoComP 2015), held in conjunction with the 16th IEEE MDM 2015, June 18, 2015
 - Pittsburgh, PA, USA, **2015**.
- **External Referee for Conferences/Symposiums**:
 - ACM SIGMOD - Intl. Management of Data Conference, 2015.

- VLDB - Very Large Data Bases Conference, 2014
- ECML PKDD - European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases, 2014.
- EDBT/ICDT - Joint Conference, 2014.
- ACM DEBS - Intl. Conference on Distributed Event-Based Systems, 2014.
- IEEE TSC - Transactions on Services Computing, 2014.
- ACM SIGMOD - Intl. Management of Data Conference, 2014.
- IEEE ISSNIP - Ninth Intl. Conference on Intelligent Sensors, Sensor Networks and Information Processing, 2014.
- IEEE ICDE - Intl. Conference on Data Engineering, 2013.
- SSDBM - Intl. Conference on Scientific and Statistical Database Management, 2013.
- VLDB - Very Large Data Bases Conference, 2013.

- **External Referee for Workshops:**

- IEEE MobiSocial (MDM) - Intl. Workshop on Mobile Data Management, Mining, and Computing on Social Networks, 2015.

VIII. TEACHING WORK EXPERIENCE

TEACHING APPOINTMENTS

Teaching Assistant, Dept. of Computer Sc., University of Cyprus

2011-2015

- **EPL660 - Information Retrieval and Search Engines**, taught by Prof. George Pallis
<http://www.cs.ucy.ac.cy/courses/EPL660/>
- **EPL451 - Data Mining on the Web**, taught by Prof. George Pallis
<http://www.cs.ucy.ac.cy/courses/EPL451/>
- **EPL646: Advanced Topics in Databases**, taught by Prof. Demetris Zeinalipour
<https://www.cs.ucy.ac.cy/~dzeina/courses/epl646/>
- **EPL233 - Object-Oriented Programming**, taught by Prof. Georgia Kapitsaki/
Panayiotis G. Andreou
<https://www.cs.ucy.ac.cy/~dzeina/courses/epl233/>
- **EPL231 - Data Structures and Algorithms**, taught by Prof. George Pallis
<https://www.cs.ucy.ac.cy/~dzeina/courses/epl231/>
- **EPL031 - Introduction to Programming**, taught by Prof. Fudos Ioannis
<http://moodle.cs.ucy.ac.cy/course/info.php?id=101>

IX. ADVISING

- Marios Vladimirou, Panayiotis Eracleous, Philippos Papaphilippou, Philkypros Ioulianou, Winning in National ImagineCup contest (Rainbow Beams), Department of CS, University of Cyprus, Cyprus, 2014.

X. AWARDS & HONORS

- Travel Grant Award among 200 invitees globally to attend the 4th Heidelberg Laureate Forum (HLF), Heidelberg, Germany, Sept 18 - 23, 2016.
- Startup prize award at HackCyprus sponsored by the CIIM Entrepreneurship and Innovation Centre, 2013.
- Best Mobile Application Award at HackCyprus sponsored by Cocoon Creations, 2013.
- Ranked 1st place at the Microsoft ImagineCup national competition with *iDOC* implementation, 2011.
- Appcampus Award, “Rayzit: Crowd Messaging” by Microsoft, Nokia and Aalto University (Finland), 2013.

XI. LANGUAGES

- Greek (native)
- English (fluent)

XII. PERSONAL INFORMATION

- Gender: Male.
- Date of Birth: Feb 22, 1988.
- Place of Birth: Limassol/Cyprus.
- Nationality: Cypriot.

XIII. REFERENCES

- **Zeinalipour Demetris**

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University of Cyprus

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- **Wang-Chien Lee**

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