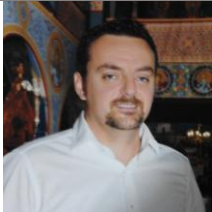


## ***CURRICULUM VITAE***

***Dr. Spyros Sioutas***



|                           |  |
|---------------------------|--|
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| <b>Home Address</b>       | Riga Feraiou 15, 26500, Patras, Greece   |
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### **Personal Profile**

**Spyros Sioutas** was born in Greece, in 1975. He graduated from the Department of Computer Engineering and Informatics, School of Engineering, University of Patras, in December 1997. He received his Ph.D. degree from the Department of Computer Engineering and Informatics, in 2002. He is now an Associate Professor in Informatics Department of Ionian University. His current research interests include: Algorithmic Data Management, Spatio-Temporal Database Systems, Distributed Data Structures and P2P Overlays, Cloud Infrastructures, Indexing, Query Processing and Query Optimization. He has published over 150 papers in various scientific journals and refereed conferences (amongst others SIGMOD Record, Algorithmica, Theoretical Computer Science, Computer Journal, Data and Knowledge Engineering, Journal of Discrete Algorithms, Distributed and Parallel Databases, Journal of Systems and Software, Artificial Intelligence Review Journal, International Journal on Artificial Intelligence Tools, Information Science, Neurocomputing, ESA, ICALP, ISAAC, DEXA, PSD, SAC, AIAI, CIKM, MDM, PODC, ICDT/EDBT, SODA, SIGMOD e.t.c.) and he has more than 700 citations. He was selected to attend as Postdoc Researcher the summer school on "massive data sets" in BRICS (Basic Research in Computer Science) department, University of Aarhus, Denmark, June 2002. He was visiting researcher in Kings College, University of London (research domain: String Algorithmics and I/O complexity), London, England, April 2005. He was also visiting researcher in MADALGO (research domain: "Deterministic Data Structures over P2P

Networks”), Aarhus, Denmark, December 2008. He has 19 years working experience as a Developer, Software Tester, Database Administrator and Project Manager at Computer Technology Institute (Research Unit 7) and ISD Lab (<http://isdlab.di.ionio.gr>).

| <b>EDUCATION</b>  |   |             |   |
|---|---|-------------|---|
| <b>Name and Place of Institution</b>  | <b>Degree</b>   | <b>Year</b> | <b>Education Field</b>  |
| Computer Engineering and Informatics Department, University of Patras, Greece | 8.2   | 1997        | <p><b>Diploma Thesis:</b> "A multimedia Information System for the city of Patras: Network Connection with Distributed Databases at popular Hotels and transport stations".</p> |
| Computer Engineering and Informatics Department, University of Patras, Greece | 10  | 2000        | <p><b>Master Thesis:</b> "Eliminating Amortization: On Data Structures with Guaranteed Response Time"</p>   |
| Computer Engineering and Informatics Department, University of Patras, Greece | 10  | 2002        | <p><b>PhD Thesis:</b> "Efficient Algorithms and Robust Techniques for Spatial, Temporal and Spatio-Temporal Retrieval and Searching"</p>  |
| <b>JOB POSITION</b>   |   |             |   |
| <b>Name and Place of Institution</b>  | <b>POSITION</b>   |             | <b>YEAR</b>   |
| Ionian University, Informatics Department                                     | Associate Prof. of Data Structures and Databases and Vice President of Research Committee of Ionian University, <a href="http://www.ionio.gr/~sioutas">http://www.ionio.gr/~sioutas</a> |             | 2006-2015   |
| Hellenic Open University  | Adjunct Professor   |             | 2008-2015   |
| C.T.I. (Computer Technology Institute)  | Scientific Consultant in Research Unit 5 of CTI   |             | 1997-2015   |

## SPEAKING LANGUAGES

English (Proficiency Level)

## Publications

### Dissertations

- ❖ **Diploma Thesis:** "A multimedia Information System for the city of Patras: Network Connection with Distributed Databases at popular Hotels and transport stations"
- ❖ **Master Thesis:** "Eliminating Amortization: On Data Structures with Guaranteed Response Time"
- ❖ **PhD Thesis:** "Efficient Algorithms and Robust Techniques for Spatial, Temporal and Spatio-Temporal Retrieval and Searching"

### International Conferences/Workshops

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2. **S.Sioutas**, A.Tsakalidis, J.Tsaknakis B.Vassiliadis, "Object - Oriented Design of an Information System based on Web", in the **Proceedings of the NIT (New Information Technologies) international conference**, Athens, Greece, October 8-10,1998, pp 107-115.
3. J.Garofalakis, **S. Sioutas** and Y. Chatziligeroudis, "Educational Software based on Dynamic Characteristics", **Informatics on Secondary Education**, Local Proceedings, Dec. 1998, pp 149-155.
4. Nectarios Kitsios, Makris Christos, **Spyros Sioutas**, Athanasios Tsakalidis, John Tsaknakis, Vassilis Vassiliadis "An optimal algorithm for reporting 3D visible Rectangles", **IEEE** International conference on: Circuits, Systems, Communications and Computer science, **CSCC'99**, Computers Graphics Session, Athens, Greece, July 4-8, 1999, pp 1-6.
5. **Spyros Sioutas**, Athanasios Tsakalidis, John Tsaknakis, Vassilis Vassiliadis "Applications of exponential search trees in sweep line techniques" **IEEE** International conference on: Circuits, Systems, Communications and Computer science, **CSCC'99**, Computational Geometry Session, Athens, Greece, July 4-8, 1999, pp 71-76.
6. **S. Sioutas**, A. Tsakalidis, J. Tsaknakis, B. Vassiliadis "A Web-based Virtual Education System for Tele-training Courses", in the Proceedings of **the ED-MEDIA TELECOM '99** international conference (11<sup>th</sup> world conference on educational multimedia and hypermedia & world conference on educational telecommunications), Seattle, Washington, June 19-24, 1999, pp 138-142.

7. John Garofalakis, Ioannis Hatzilygeroudis, George Papanikolaou, **Spyros Sioutas** "Architectural Aspects of An Interactive Multimedia Environment for Teaching Chemistry in Greek Secondary Education", in the Proceedings of the **ED-MEDIA TELECOM '99** international conference (11<sup>th</sup> world conference on educational multimedia and hypermedia & world conference on educational telecommunications), Seattle, Washington, June 19-24, 1999, pp 715-720.
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9. **Spyros Sioutas**, Athanasios Tsakalidis, John Tsaknakis, Vassilis Vassiliadis "An Efficient indexing on Database Structure for Exact and Partial Match Queries", The East-European Conference on Advances in Databases and Information Systems - **Moscow ACM SIGMOD/ADBIS'99**, LNCS #1691, In cooperation with ACM SIGMOD, Moscow ACM SIGMOD Chapter and Slovenian Society Informatika, Maribor, Slovenia, September 13-16, 1999, pp 24-28.
10. Delis Vasilis, Makris Christos and **Sioutas Spyros** "A Provably Efficient Computational Model For Approximate Spatiotemporal Retrieval" The 7th ACM International Symposium on Geographic Information Systems, **ACM SIGSPATIAL GIS 99**, Kansas City, USA, November 5-6, 1999, pp 40-46.
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13. G. Derekenaris, J. Garofalakis, J. Prentzas, C. Makris, **S. Sioutas**, A. Tsakalidis, "Integrating GIS, GPS and GSM technologies for the Effective Management of Ambulances", In Proceedings of 2<sup>nd</sup> International Symposium on TeleGeoprocessing, **TeleGeo2000**, Nice, France – May 10-12, 2000, pp:131-141.
14. Gregory Derekenaris, John Garofalakis, Jim Prentzas, **Spyros Sioutas**, Athanassios Tsakalidis "Architectural Aspects of An Interactive Multimedia Environment for Training Employees in Internet/Intranet Technologies", in the Proceedings of the **ED-MEDIA 2000** international conference (12<sup>th</sup> world conference on educational multimedia and hypermedia & world conference on educational telecommunications), Montreal, Canada, June 26-July 1, 2000, pp 1269-1271.
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2. **Spyros Sioutas**, [Kostas Tsihclas](#), [Ioannis Karydis](#), [Yannis Manolopoulos](#), [Yannis Theodoridis](#) and Ch. Zaroliagis: "NEFOS: Rapid Cache-Aware Range Query Processing with Probabilistic Guarantees", submitted to **Journal of Systems and Software, Elsevier**.
3. **S.Sioutas**, K. Tsakalidis, D.Tsoumakos, K. Doka and A.N.Papadopoulos, «MLR-tree: Optimal Expected Behaviour for Dynamic Planar Range Skyline Queries on the Grid», submitted to **PVLDB**.
4. Efrosini Sourla, **Spyros Sioutas**, Kostas Tsihclas, Christos D. Zaroliagis: D3-Tree: A Dynamic Distributed Deterministic Load - Balancer for decentralized tree structures. Submitted to **Distributed and Parallel Databases** (Springer).

### **Technical Reports**

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4. CTI T.R. 07/06/00 **Sioutas S**, Makris Ch, Tsakalidis A. "Finger searching with input distributions in RAM model".
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8. **Spyros Sioutas**: Finger Indexed Sets: New Approaches CoRR abs/0805.2671: (2008).
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18. Angeliki Rapti, Kostas Tsihclas, **Spyros Sioutas**, Giannis Tzimas: Virus Propagation in Multiple Profile Networks. CoRR abs/1504.03306 (2015).
19. Efrosini Sourla, **Spyros Sioutas**, Kostas Tsihclas, Christos D. Zaroliagis: D3-Tree: A Dynamic Distributed Deterministic Load - Balancer for decentralized tree structures. CoRR abs/1503.07905 (2015).
20. Nikolaos Nodarakis, **Spyros Sioutas**, Athanasios K. Tsakalidis, Giannis Tzimas: Using Hadoop for Large Scale Analysis on Twitter: A Technical Report. CoRR abs/1602.01248(2016).

## European Training Schools

1. I attended the "EEF School on Massive Data Sets", held at BRICS, University of Aarhus, Denmark, during the summer of 2002. I attended the following topics- chapters:
  - 1.1 "External Memory Geometric Data Structures", Prof. Lars Arge, Department of Computer Science-Duke University
  - 1.2 "External Memory Algorithms and Data Structures: Dealing with Massive Data", Prof. Jeffrey Scott Vitter - Duke University
  - 1.3 "Cache- Oblivious Algorithms and Data Structures", Prof. Eric D. Demaine, MIT Laboratory for Computer Science, Cambridge, USA.
  - 1.4 "I/O- Efficient Graph Algorithms", Prof. Norbert Zeh, Department of Computer Science, Duke University, USA.
  - 1.5 "String Algorithms and Data Structures", Prof. Paolo Ferragina, Department of Informatics, University of Pisa, Italy.
2. On April 2005, I attended the «String Algorithmics» seminars held in King's College, University of London (Computer Science Department).
3. On December 2008, I attended the following "MADALGO" (MAive DA ta ALGOithmics) seminars, held at BRICS, University of Aarhus, Denmark:
  - 3.1 "Parametric Searching", PS.Srinivasa Rao, Post Doc in MADALGO
  - 3.2 "Compressed Representations of Permutations, And Applications", Assistant Prof. Jeremy Barbay, University of Chile.





## Professional Experience






1. Participation in the Sirens project (working under contract). This project produced an Interactive between Teacher and students virtual classroom (multimedia CD) for the education of Chemistry in high schools, 01/10/97 - 30/09/98.
2. Participation in the Pave project (working under contract). This project produced a multimedia CD for the education of deaf peoples, 01/11/97 - 31/12/97.
3. Participation in the MANNET EUROPEAN PROGRAM with subject "Geographical Information Systems and Applications", 01/01/97 - 31/12/98.
4. Participation in Research Program entitled "Integrating management information systems of wide area voice networks", (working under contract), 01/10/98 - 31/12/99.
5. Participation in the INTEREG EUROPEAN PROGRAM (working under contract), 01/10/98 - 28/02/99.
6. Participation in the Post-graduate Diploma PROGRAM (working under contract), 01/01/99 - 31/12/99.

7. Participation in the ADAPT EUROPEAN PROGRAM, 1/1/1998 – 31/12/1999.
8. Participation in "**PANDA**:Patterns for New Generation Database Systems, FET-IST-2001-33058", 01/12/2001 - 31/05/2004.
9. Participation in "Pythagoras - EPEAEK" PROGRAM, 01/03/04 – 31/08/06.
10. Participation in **STAT – OBJECT**, G.G.E.T, 01/06/2002 - 31/01/2004.
11. Head of project SYNERGASIA "e-auction", ESPA 2007-2013.  
  
European Union (European Social Fund ESF) and Greek national funds through the Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) - Research Funding Program: Cooperation 2011 Partnerships of Production and Research: Creating Novel e-Auction Platforms for Hotels.  
[www.hotelauctions.gr](http://www.hotelauctions.gr)
12. Head of project "Web-based Database Development for the management of persons who played important roles in the Greek Modern History", 1/6/2011 - 31/12/2011, Ionian University, Department of Informatics - Department of History (Funding from Research Committee of Ionian University).
13. Head of project "Open Courses", ESPA 2007-2013.  
  
European Union (European Social Fund – ESF) and Greek national funds through the Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) - Research Funding Program: "Open Courses". Creating a new e-class+ platform in Greek Universities for supporting distance learning.
14. Participation in the THALES project Cloud9: (working under contract):  
  
European Union (European Social Fund – ESF) and Greek national funds through the Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) - Research Funding Program: Thales. Investing in knowledge society through the European Social Fund. Title of Project: Cloud9: A multidisciplinary, holistic approach to internet-scale cloud computing". <https://sites.google.com/site/thalisccloud9/home>
15. Participation in the SYNERGASIA project "11SYN\_9\_781 BORDER GUARDS": (working under contract):  
European Union (European Social Fund ESF) and Greek national funds through the Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) - Research Funding Program: Cooperation 2011 Partnerships of Production and Research. Creating Border Guards via GIS and Mobile GIS.
16. Participation in **DASTA** Program of Ionian University, **ESPA 2007-2013**, 1/2013 – 12/2014.
17. Senior Researcher in ESF (European Social Fund) Program **ADRIATIN, INTERREG**, 1/2014 – 3/2016.  
Senior Researcher in ESF (European Social Fund) Program **PACCINO, IPA ADRITIC**, 1/2014 – 4/2016.
18. Senior Researcher in ESF (European Social Fund) Program **BIG, IPA ADRITIC**, 1/2014 – 12/2015.
19. Senior Researcher in ESF (European Social Fund) Program **SMART BUILD, INTERREG**, 1/2013 – 12/2013.
20. Senior Researcher in ESF (European Social Fund) Program **TRAMOOC, HORIZON 2020**, 1/2015 – 12/2017.

21. Educational Experience from my Participation in the ELKEPA program.  
**Lesson:** "Fundamentals in Computer Science"
22. Postgraduate Lecturer in Computer Engineering and Informatics Department, University of Patras, 1997-2000.  
**Lessons:** "Data Structures", "Advanced Data Structures and Computer Graphics"
23. Adjunct Lecturer in Technological Educational Institute of Patras, 2002 - 2004.  
**Lessons:** "Database Theory", "Fundamentals in Computer Science".
24. Adjunct Assistant Professor in Technological Educational Institute of Mesollogi, 2003-2004, 2004-2005, 2005-2006.  
**Lesson:** "Data Structures".
25. AdjunctAssistant Professor in Technological Educational Institute of Mesollogi, 2005-2006.  
**Lessons:** "Advanced Programming - C++", "Advance Databases - SQL Server 7.0"
26. Adjunct Assistant Professor in Computer Engineering and Informatics Department, University of Patras, 2004-2005, 2005-2006 (Winter Semester)  
[http://mmlab.ceid.upatras.gr/courses/language\\_C++](http://mmlab.ceid.upatras.gr/courses/language_C++)  
**Lesson:** "Object Oriented Programming, C++".
27. Adjunct Assistant Professor in Computer Engineering and Informatics Department, University of Patras, 2005-2006, 2005-2006 (Vernal Semester)  
**Lesson:** "Advanced Database Theory".
28. Associate Professor, Informatics Department, Ionian University: 2006-2016.  
  
**Lessons:** Databases I, Databases II, Data Structures, Advanced Database Systems (Post-Graduate Program), Data Warehouses and Data Mining, Advanced Programming with C++(Post-Graduate Program), IT Project Management, Advanced Data Structures and Databases (Post-Graduate Program).
29. Adjunct Associate Professor in Hellenic Open University: 2007-2016.  
  
**Lessons:** Databases, Operating Systems, Software Engineering, Data Structures-Algorithms and Complexity.
30. Lecturing in Greek Mathematical Society.  
  
Lessons: Pascal, C++, Microsoft Office 2000
31. Lecturing in Greek Chemistry Society.  
  
Lessons: Multimedia (Adobe Premier, Flash, Cool Edit)

## Research Interests

1.  Efficient I/O Algorithms & Data Structures
2.  Computational Geometry and Computer Graphics
3.  Spatio-Temporal and Multimedia Databases
4.  Distributed Data Structures and Peer-to-Peer Computing

5.  Parallel and Distributed Data Structures and Cloud Computing
6.  Knowledge Data Discovery (KDD)
7.  Data Mining Algorithms
8.  Spatial Data Structures and Geographical Information Systems
9.  Educational Software

## Citations

There are **702 Citations** Based on **Publish and Perish** and <http://scholar.google.gr>

**(g-Index:23, h-Index:12)**

## Reviewer\Organizer on the following journals and conferences

- ✚ 1998, 2004: Information Processing Letters (IPL) – Reviewer
- ✚ 1998: Algorithmica – Reviewer
- ✚ 1999. Acta Informatica – Reviewer
- ✚ 2000: Journal of Algorithms – Reviewer
- ✚ 2002: ESA (European Symposium on Algorithms) – Reviewer
- ✚ 2002: ICALP (International Colloquium on Automata, Languages and Programming) – Reviewer
- ✚ 2003: AWOCA (Australasian Workshop on Combinatorial Algorithms) – Reviewer
- ✚ 2005: WEA (Workshop on Experimental Algorithms) – Reviewer
- ✚ 2005: Program Committee: Algorithmic Techniques for Handling Spatiotemporal and Environmental Data, <http://www.worldses.org/conferences/2005/greece/icomp/spatio.htm>
- ✚ 2005: Organizing and Program Committee: Sixteenth ACM Conference on Hypertext and Hypermedia (ACM HyperText 2005), 6.-9.Sept. 2005, Salzburg, International Workshop on Peer to Peer and Service Oriented Hypermedia: Techniques and Systems
- ✚ 2006: Organizing and Program Committee: Seventeenth ACM Conference on Hypertext and Hypermedia, (ACM HyperText 2006), Odense, Denmark, 20-23 August, International Workshop on Architectures, Models and Infrastructures to Generate Semantics in Peer to Peer and Hypermedia Systems
- ✚ 2007, 2009: JPDC (Journal of Parallel and Distributed Computing) - Reviewer
- ✚ 2008, 2009: JSS (Journal of Systems and Software, Elsevier) - Reviewer
- ✚ 2008, 2009: DKE (Data and Knowledge Engineering, Elsevier) - Reviewer
- ✚ 2008: IEEE PCI, <http://www.icsd.aegean.gr/pci2008/> - Reviewer
- ✚ 2008: Οργανωτική Επιτροπή 2<sup>ης</sup> Διημερίδας Τμήματος Πληροφορικής Ιονίου Πανεπιστημίου, Ιούνιος 2008.
- ✚ 2008: IADIS Data Mining, <http://www.datamining-conf.org/committees.asp> - Reviewer
- ✚ 2008,2009 :Organizing and Program Committee on ICICTE, <http://www.icicte.org/>
- ✚ 2009 : ICDE (Reviewer)

- ✚ 2009: IEEE PCI (pci2009.ionio.gr) - Organizing and Program Committee
- ✚ 2010: PSD (Privacy in Statistical Databases) - Organizing and Program Committee
- ✚ 2010: Computer Journal – Reviewer
- ✚ 2011: IEEE Networks – Special Issue on Cloud Computing (Reviewer)
- ✚ 2011: AIAI / EANN 2011 (Organizing and Program Committee)
- ✚ 2011: Computer Journal – Reviewer
- ✚ 2012: AIAI 2012 (Workshop Chair)
- ✚ 2013: EANN/MHDW (Workshop Chair)
- ✚ 2014: AIAI 2014 (Workshop Chair)
- ✚ 2015: ICDM 2015 (Reviewer)
- ✚ 2015: EANN/MHDW (Workshop Chair)
- ✚ 2015: ALGO 2015 / ALGO CLOUD 2015 (Workshop Chair)
- ✚ 2016: EANN/MHDW (Workshop Chair)
- ✚ 2016: ALGO 2016 / ALGO CLOUD 2016 (Workshop Chair – ALGO CLOUD Steering Committee)
- ✚ 2016: Journal of Algorithms, Special Issue in Mining Humanistic Data, Guest Editor:  
[http://www.mdpi.com/journal/algorithms/special\\_issues/data\\_processing](http://www.mdpi.com/journal/algorithms/special_issues/data_processing)
- ✚ 2016: INNS BIG DATA, Springer, Program Committee.
- ✚ 2016: Journal of Computation, Special Issue in natural-unconventional-and-bio-inspired-algorithms-and-computation-methods, Guest Editor.
- ✚ MEDI (LNCS) 2015, 2016: Program Committee.
- ✚ 2016: Journal of Computers and Electrical Engineering, Elsevier, Special Issue on new-trends in-humanistic informatics, Guest Editor:  
  
<http://www.journals.elsevier.com/computers-and-electrical-engineering/call-for-papers/special-section-on-new-trends-in-humanistic-informatics>
- ✚ 2017: ACM/IEEE CCGRID 2017 Program Committee.