

Soteris Constantinou

(Curriculum Vitae)

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I. RESEARCH INTERESTS

Data Management in Computer Systems and Networks: *Data Management for Sustainability; Mobile and Sensor Data Management; Big Data Management in Parallel and Distributed Architectures; Spatio-Temporal Data Management; Network Data Management; Indoor Data Management.*

II. EDUCATION

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|--------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Ph.D. | Computer Science, University of Cyprus
<i>Dissertation: A Data-driven IoT Architecture for Self-consumption of Renewable Energy</i> | 09/2019 - TBA |
| B.Sc. | Computer Science, University of South Wales - UK
<i>Thesis: 3D Parametric Human Body Modelling Tool for use in the Clinical Setting</i> | 09/2013 - 07/2016 |

III. EXPERIENCE

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|---------------------------------------------------------------------------------|-------------------|
| Teaching Assistant , University of Cyprus, Cyprus | 01/2021 - 04/2024 |
| Database Administrator , CTIP: Cyber-Threat Intelligence Platform, CY | 01/2023 - 12/2023 |
| Back-end Developer , EnterCY Project, Cyprus (INTEGRATED/0916/0020) | 09/2019 - 12/2022 |
| Full-stack Software Developer , Patsoft Ltd, Cyprus | 01/2018 - 09/2019 |
| Microsoft Certified Professional | 2018 |
| Web Developer , Dynamic Works Ltd, Cyprus | 05/2017 - 01/2018 |
| Software Development Officer , National Hospital Informatics Service, UK | 07/2016 - 05/2017 |

IV. PUBLICATIONS

JOURNAL AND MAGAZINE ARTICLES

- J3. “A Sustainable Energy Management Framework for Smart Homes”**,
Soteris Constantinou, Constantinos Costa, Andreas Konstantinidis, Panos K. Chrysanthis, and Demetrios Zeinalipour-Yazti, **IEEE Transactions on Sustainable Computing (TSUSC’24)**, IEEE Computer Society, Los Alamitos, CA, USA, **2024**. [Accepted]
- J2. “Green Planning of IoT Home Automation Workflows in Smart Buildings”**,
Soteris Constantinou, Andreas Konstantinidis, Panos K. Chrysanthis and Demetrios Zeinalipour-Yazti, **ACM Transactions on Internet of Things (TIOT’22)**, Volume 3, Issue 4, Article 29, pp. 1-30, doi: 10.1145/3549549, November **2022**.
- J1. “Green Planning Systems for Self-Consumption of Renewable Energy”**,
Soteris Constantinou, Andreas Konstantinidis and Demetrios Zeinalipour-Yazti, **IEEE Internet Computing (IC’22)**, 7 pages, doi: 10.1109/MIC.2022.3164581, April **2022**.

CONFERENCE AND WORKSHOP PROCEEDINGS

- C6. “A Framework for Continuous kNN Ranking of EV Chargers with Estimated Components”**,
Soteris Constantinou, Constantinos Costa, Andreas Konstantinidis, Mohamed F. Mokbel, Demetrios Zeinalipour-Yazti, *Proceedings of the 40th IEEE International Conference on Data Engineering (ICDE 2024)*, IEEE Computer Society, pp. 13 pages, May 13 - May 17, 2024, Utrecht, Netherlands, **2024**. [Accepted]
- C5. “GreenCap: A Platform for Solar Self-Consumption using IoT Data”**,
Soteris Constantinou, Nicolas Polycarpou, Constantinos Costa, Andreas Konstantinidis, Panos K. Chrysanthis and Demetrios Zeinalipour-Yazti, *Proceedings of the 24th IEEE International Conference on Mobile Data Management (MDM 2023)*, IEEE Computer Society, Singapore, July 3 - July 6, **2023**.
- C4. “An IoT Data Management System for Solar Self-Consumption”**,
Soteris Constantinou, Nicolas Polycarpou, Constantinos Costa, Andreas Konstantinidis, Panos K. Chrysanthis and Demetrios Zeinalipour-Yazti, *Proceedings of the 24th IEEE International Conference on Mobile Data Management (MDM 2023)*, IEEE Computer Society, Singapore, July 3 - July 6, **2023**.
- C3. “EnterCY: A Virtual and Augmented Reality Tourism Platform for Cyprus”**,
Soteris Constantinou, Andreas Pamboris, Rafael Alexandrou, Christoforos Kronis, Demetrios Zeinalipour-Yazti, Harris Papadopoulos and Andreas Konstantinidis, *Proceedings of the 23rd IEEE International Conference on Mobile Data Management (MDM 2022)*, IEEE Computer Society, pp. 314-317, doi: 10.1109/MDM55031.2022.00069, Paphos, Cyprus, June 6 - June 9, **2022**.
- C2. “The IoT Meta-Control Firewall”**,
Soteris Constantinou, Antonis Vasileiou, Andreas Konstantinidis, Demetrios Zeinalipour-Yazti, and Panos K. Chrysanthis, *Proceedings of the 37th IEEE International Conference on Data Engineering (ICDE 2021)*, pp. 2523-2534, doi: 10.1109/ICDE51399.2021.00284, Chania, Crete, Greece, April 19-23, **2021**.
- C1. “IMCF: The IoT Meta-Control Firewall for Smart Buildings”**,
Soteris Constantinou, Antonis Vasileiou, Andreas Konstantinidis, Panos K. Chrysanthis, Demetrios Zeinalipour-Yazti, *Proceedings of the 24th IEEE International Conference on Extending Database Technology (EDBT 2021)*, OpenProceedings.org, pp. 658-661, doi: 10.5441/002/edbt.2021.77, Nicosia, Cyprus, March 23 - March 26, **2021**.

BOOK CHAPTERS AND NEWSLETTERS

- B2. “Sustainable Scheduling of Operations: Advancing Self-Consumption through an IoT Data Framework”**,
Soteris Constantinou, Andreas Konstantinidis, Demetrios Zeinalipour-Yazti, *ERCIM News - Special Issue on “Climate-Resilient Society”*, No. 135, Article 24, ERCIM EEIG, ISSN: 0926-4981, October **2023**.
- B1. “Green Energy Planning of IoT Rule Automation Workflows in Smart Environments”**,
Soteris Constantinou, Andreas Konstantinidis, Demetrios Zeinalipour-Yazti, *ERCIM News - Special Issue on “Smart and Circular Cities”*, No. 127, Article 17, ERCIM EEIG, ISSN: 0926-4981, October **2021**.

THESES

- T1. “3D Parametric Human Body Modelling Tool for use in the Clinical Setting”**,
Soteris Constantinou, B.Sc. Thesis, *Department of Computer Science, University of South Wales, UK*, July **2016**.
Abstract: The model could be used by clinical engineers and other clinical experts to visualize the musculoskeletal configurations of clients with musculoskeletal deformities and thereby inform their clinical judgements. A parametric human modelling function has been implemented, that simulates the relationship between external body shape and musculoskeletal configuration allowing for personalized modelling. The implementation to control variety of postures is achieved by using hierarchical algorithms, Forward and Inverse Kinematics.

V. TALKS

- **Presentation**, “A Data-driven IoT Architecture for Self-consumption of Renewable Energy”, 3rd Doctoral Colloquium of the Cyprus Rectors’ Conference, University of Cyprus, April 13, **2024**.
- **Presentation**, “GreenCap: A Platform for Solar Self-Consumption using IoT Data”, *Proceedings of the 24th IEEE International Conference on Mobile Data Management (MDM 2023)*, Singapore, July 5, **2023**.
- **Presentation**, “An IoT Data Management System for Solar Self-Consumption”, *Proceedings of the 24th IEEE International Conference on Mobile Data Management (MDM 2023)*, Singapore, July 4, **2023**.
- **Invited Talk**, “Internet of Things Research at the Data Management System Laboratory”, EPL670 - Research Methods and Professional Practices in Computer Science, University of Cyprus, Department of Computer Science, October 15, **2022**.
- **Presentation**, “EnterCY: A Virtual and Augmented Reality Tourism Platform for Cyprus”, *Proceedings of the 23rd IEEE International Conference on Mobile Data Management (MDM 2022)*, Paphos, Cyprus, June 7, **2022**.
- **Presentation**, “The IoT Meta-Control Firewall”, *Proceedings of the 37th IEEE International Conference on Data Engineering (ICDE 2021)*, Chania, Crete, Greece, April 20, **2021**.
- **Presentation**, “IMCF: The IoT Meta-Control Firewall for Smart Buildings”, *Proceedings of the 24th IEEE International Conference on Extending Database Technology (EDBT 2021)*, Nicosia, Cyprus, March 24, **2021**.

VI. RESEARCH PROJECTS AND FUNDING

- **2021-2023 (Participant):** *Cyber-Threat Intelligence Platform (CTIP)*, with Elias Athanopoulos (UCY), George Pallis (UCY) and Vasos Vassiliou (UCY) - PI, National Computer Security Incident Response Team for Cyprus (CSIRT-CY), Cyprus.
- **03/2019-02/2022 (Participant):** *EnterCY: ENhancing Tourist ExpeRience in Cyprus*, Pillar: Smart Growth, Programme: Integrated Projects, RPF Proposal Number: INTEGRATED/0609/0020, Partners: Frederick Research Center (coordinator), University of Cyprus, CyRIC, Silversky3D, Department of Antiquities, Association of Cyprus Travel Agents (ACTA), Cyprus Tourism Organisation (CTO).

VII. TEACHING WORK EXPERIENCE

Teaching Assistant, Department of Computer Science, University of Cyprus 01/2021-present

- **EPL031 - Introduction to Programming** (2021-2024): Elective for All Directions.
- **EPL342 - Databases** (2022-2023): Lower-Division Compulsory for all CS students. (<https://www.cs.ucy.ac.cy/~dzeina/courses/ep1342/>)

VIII. HONORS & ENGAGED ACTIVITIES

- **Partial Scholarship (Evagoras & Praksandros)** by the Computer Science Department, University of Cyprus, 2019-2022.
- Webmaster for conference websites: The 2nd IEEE Intl. Workshop on Algorithms for Indoor Architectures and Systems (ALIAS 2022) and The 3rd IEEE Intl. Maritime Big Data Workshop (MBDW 2022) collocated with the 23rd IEEE Intl. Conference on Mobile Data Management (MDM 2022)
- Coordinator and responsible for demonstration of Technological Applications (Informatics Day for Middle School, High School & Technical School students - 2021/2022/2023)
- Participation: “Seeds for the Future Program Launch - Huawei Cyprus 2023”, iLearningX-ICT related: IoT, smart home, cyber security, digital trade, smart city, data and industry trends.
- Certificate: Webinar 2021 – “How to reactively defend against advanced cyber threats”, CyberWatching EU
- Participation: “RAIS Marie Curie project - Summer School on IoT Analytics: Research and Innovation”. <https://rais-itn.eu/training-course/iot-analytics-research-and-innovation>
- Certificate of achievement (March 6, 2024) “ICAEW Virtual Conference 2024: Meeting the challenges of the current generation - AI and ESG / Sustainability”
- Panel Chair & presenter: 3rd Doctoral Colloquium (April 13, 2024) - selected by the Scientific Committee to serve as panel chair.

IX. EXTERNAL REVIEWER

- IEEE BigData - Intl. Conference on Big Data, 2024.
- ACM SIGMOD/PODS - Intl. Conference on Management of Data, 2024.
- IEEE ICDE - Intl. Conference on Data Engineering, 2024.
- IEEE ICDE - Intl. Conference on Data Engineering, 2023.
- DASFAA - Intl. Conference on Database Systems for Advanced Applications, 2022.
- IEEE IoT-J - Internet of Things Journal, 2022.
- ACM SIGMOD/PODS - Intl. Conference on Management of Data, 2022.
- Springer Euro-Par - Intl. Conference on Parallel and Distributed Computing, 2022.
- IEEE ICDM - Intl. Workshop on Social Data Mining, 2021.
- IEEE BSD - Intl. Workshop on Big Spatial Data, 2021.
- IEEE BigData - Intl. Conference on Big Data, 2021.

X. LANGUAGES

- Greek (native)
- English (fluent)

XI. PERSONAL INFORMATION

- Gender: Male
- Date of Birth: November 12, 1992
- Place of Birth: Cyprus
- Nationality: Cypriot
- Marital Status: Married

XII. REFERENCES

- **Prof. Panos K. Chrysanthis**
Department of Computer Science
University of Pittsburgh, US
Phone: +1-412-624-8924
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- **Prof. Mohamed F. Mokbel**
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- **Prof. Demetris Zeinalipour**
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