

## Permanent Address

Koufokosta 2, 35131

Lamia, GRC

## CURRENT POSITION

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### University of Thessaly

Lamia, GRC

Post Doctoral Researcher in Computer Science and Biomedical Informatics

February 2024–Current

- Advisor: Tasoulis Sotiris

## EDUCATION

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### University of Thessaly

Lamia, GRC

Doctor of Philosophy (Ph.D.) in Computer Science and Biomedical Informatics

2019–2023

- Advisor: Tasoulis Sotiris
- Thesis: “Design and Implementation of Machine Learning Algorithms in Big Biomedical Data”

### University of Patras

Patras, GRC

Bachelor with Integrated master in Computer Engineering and Informatics, Degree: 6.70

2009–2019

- Thesis: “Knowledge mining and visualization of molecular biology networks”

## EXPERIENCE

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### University of Thessaly

Lamia, GRC

Post Doctoral Researcher in Computer Science and Biomedical Informatics

February 2024–Current

- Advisor: Tasoulis Sotiris
- Title: “Machine Learning Algorithms in Big Data”

### University of Thessaly

Lamia, GRC

Role: Researcher

June 2024–Current

- “Bridging big omic, genetic and medical data for Precision Medicine implementation in Greece (project code TAEDR-0539180)”
- Funded by the European Union – NextGenerationEU through Greece 2.0—National Recovery and Resilience Plan, under the call “Flagship actions in interdisciplinary scientific fields with a special focus on the productive fabric” (ID 16618).

### Institute for Bio-economy and Agri-technology iBO/CERTH

Lamia, GRC

Role: Researcher

December 2023–Current

- “Personalized Rehabilitation Via Novel AI Patient Stratification Strategies (PREPARE)”
- Funded by the European Union. UK participants in Horizon Europe Project PREPARE are supported by UKRI grant number 10086219 (Trilateral Research).

### Institute for Bio-economy and Agri-technology iBO/CERTH

Lamia, GRC

Role: Researcher

August 2021–October 2023

- “uPrevent”

- Co-funded by the European Union and the European Regional Development Fund under the Single Action for State Aid for Research, Technological Development & Innovation “RESEARCH–CREATE–INNOVATE”.

### Signal Ocean SMPC

Lamia, GRC

Role: Researcher

February 2023–October 2023

- “Design and implementation of machine learning algorithms for the prediction and analysis of the course of transport vessels”
- Funded by the company Signal Ocean SMPC.

### University of Thessaly

Lamia, GRC

Role: Researcher

March 2022–September 2023

- “ParICT\_CENG: Improving ICT research infrastructures in Central Greece for processing large volumes of data from sensor streams, multimedia and complex mathematical simulation models”
- Funded under the NSRF 2014-2020, co-financed by Greece and the European Union (European Regional Development Fund).

### Signal Ocean SMPC

Lamia, GRC

Role: Researcher

March 2021–December 2021

- “Design and implementation of machine learning algorithms for the prediction and analysis of the course of transport vessels”
- Funded by the company Signal Ocean SMPC.

### Institute for Bio-economy and Agri-technology iBO/CERTH

Lamia, GRC

Role: Researcher

March 2016–April 2021

- “Advanced personalised, multi-scale computer models preventing OsteoArthritis,”
- Funded by European Community’s H2020 Programme, under grant agreement Nr. 777159.

## PUBLICATIONS

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- [1] S. K. Tasoulis, **P. Anagnostou**, A. G. Vrahatis, S. V. Georgakopoulos, and V. P. Plagianakos, “Boosting neural network performance for high dimensional data through random projections,” *Available at SSRN 4991467*,
- [2] P. Barmpas, **P. Anagnostou**, S. K. Tasoulis, S. V. Georgakopoulos, and V. P. Plagianakos, “HCER: Hierarchical clustering-ensemble regressor,” in *Engineering Applications of Neural Networks*, L. Iliadis, I. Maglogiannis, A. Papaleonidas, E. Pimenidis, and C. Jayne, Eds., Cham: Springer Nature Switzerland, 2024, pp. 369–378, ISBN: 978-3-031-62495-7.
- [3] **P. Anagnostou**, P. Barmpas, S. K. Tasoulis, S. V. Georgakopoulos, and V. P. Plagianakos, “Neural networks voting for projection based ensemble classifiers,” in *2023 IEEE International Conference on Big Data (BigData)*, IEEE, 2023, pp. 4567–4574.
- [4] **P. Anagnostou**, N. G. Pavlidis, and S. K. Tasoulis, “Ensemble clustering for boundary detection in high-dimensional data,” in *Proceedings of the 9th Annual Conference on Machine Learning, Optimization and Data Science (LOD)*, Lake District, UK: Springer, 2023.
- [5] **P. Anagnostou**, S. Tasoulis, V. P. Plagianakos, and D. Tasoulis, “HiPart: Hierarchical divisive clustering toolbox,” *Journal of Open Source Software*, vol. 8, no. 84, p. 5024, 2023.
- [6] P. C. Theocharopoulos, **P. Anagnostou**, A. Tsoukala, S. V. Georgakopoulos, S. K. Tasoulis, and V. P. Plagianakos, “Detection of fake generated scientific abstracts,” in *2023 IEEE Ninth International Conference on Big Data Computing Service and Applications (BigDataService)*, 2023, pp. 33–39.

- [7] P. Barmpas, S. Tasoulis, A. G. Vrahatis, S. V. Georgakopoulos, **P. Anagnostou**, M. Prina, J. L. Ayuso-Mateos, J. Bickenbach, I. Bayes, M. Bobak, *et al.*, “A divisive hierarchical clustering methodology for enhancing the ensemble prediction power in large scale population studies: The athlos project,” *Health Information Science and Systems*, vol. 10, no. 1, p. 6, 2022.
- [8] **P. Anagnostou**, S. Tasoulis, A. G. Vrahatis, S. Georgakopoulos, M. Prina, J. L. Ayuso-Mateos, J. Bickenbach, I. Bayes-Marin, F. F. Caballero, L. Egea-Cortés, *et al.*, “Enhancing the human health status prediction: The athlos project,” *Applied Artificial Intelligence*, vol. 35, no. 11, pp. 834–856, 2021.
- [9] **P. Anagnostou**, P. Barbas, A. G. Vrahatis, and S. K. Tasoulis, “Approximate knn classification for biomedical data,” in *2020 IEEE International Conference on Big Data (Big Data)*, IEEE, 2020, pp. 3602–3607.

## INVITED TALKS

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- N. G. Pavlidis, **P. Anagnostou**, and S. Tasoulis, “Dimensionality reduction and clustering”, in Proceedings 35th Panhellenic & 1st International Statistics Conference, Athens, Greece, 2023. Co-presenters: Pavlidis, Nicos G., and Tasoulis, Sotiris.

## REFEREE SERVICE

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- Reviewer on, the journal of Pattern Recognition Letters (PRLetters) the journal of Future generation computer systems (FGCS), the Journal of Open-Source Software (JOSS) and the journal of Neural computing & applications (NCAA).
- **Program Committee Member**, IEEE Symposium Series on Computational Intelligence (IEEE SSCI), 2024
- **Program Committee Member**, IEEE Congress on Evolutionary Computation (IEEE CEC), 2024
- **Program Committee Member**, IEEE International Conference on Big Data (IEEE BigData), 2021 and 2023

## TEACHING

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- **Instructor** at Department of Computer Science and Biomedical Informatics, University of Thessaly Fall 2024  
*Microprocessors (DIB\_U\_206)*
- Part of the program “Acquisition of Academic Teaching Experience for New PhD Holders” co-funded by the European Union and National Resources.
- **Instructor** at Department of Computer Science and Biomedical Informatics, University of Thessaly Fall 2024  
*Internet Application Technologies (DIB\_U\_182)*
- Part of the program “Acquisition of Academic Teaching Experience for New PhD Holders” co-funded by the European Union and National Resources.
- **Instructor** at Department of Computer Science and Biomedical Informatics, University of Thessaly Spring 2024  
*Embedded Computer Systems in Biomedical Engineering (DIB\_U\_211)*
- Part of the program “Acquisition of Academic Teaching Experience for New PhD Holders” co-funded by the European Union and National Resources.
- **Instructor** at Department of Computer Science and Biomedical Informatics, University of Thessaly Spring 2024  
*Ubiquitous Computing Applications Programming (DIB\_U\_235)*
- Part of the program “Acquisition of Academic Teaching Experience for New PhD Holders” co-funded by the European Union and National Resources.

## TECHNICAL SKILLS

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- **Programming Languages:**
  - **Object Oriented:** C++, Java
  - **Procedural:** C, Pascal
  - **Scripting:** R, Python, Bash, PHP
  - **Other:** Latex, Matlab, XML, HTML5, CSS, MySQL, Prolog
- **Operating Systems:**
  - GNU/Linux. Proficient in using CLI and GUI.
  - Microsoft Windows
  - Android. Application level development.
- **Version Control System:** Git
- **Build automation tool:** Apache Maven

## LANGUAGES

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- **Greek:** Native Language
- **English:** State Certificate of Language Proficiency (KPG), Level B2