

Charalampos P. Triantafyllidis | CV

EDUCATION • **B.Sc., M.Sc. Ph.D. in Applied Computer Science, University of Macedonia, Greece**

Thesis (co-advised by MIT - USA) :

A non-monotonic infeasible interior-exterior point algorithm for Linear Programming, January 2014
(MATLAB, C++)

DISTINCTIONS • **TOP 5%** in Greece (07/2000) from a total of 70,000 candidates on national examination for B.S. degree entry (score: 19,180/20,000).

ACADEMIC • **Goldsmiths University, Department of Computing**

APPOINTMENTS Assistant Professor in Computer Science

Oct 2023 – Present

• **University of Greenwich, School of Computing & Mathematical Sciences**

Lecturer in Computer Science

Sept 2022 – Sept 2023

RESEARCH • **Imperial College London, School of Public Health**

APPOINTMENTS MRC Early Career Research Fellow

July 2021 – Aug 2022

Machine Learning for Cardiopulmonary Disease Complications (R)

• **University of Oxford, Medical Sciences Division**

Senior Research Scientist

April 2019 – June 2021

ERC: Machine Learning/Data Science and Network modelling/optimization for cancer networks (R).

• **University of Oxford, Smith School of Enterprise**

Postdoctoral Researcher

June 2018 – March 2019

Software Engineering supervisor for Asset Risk management under sustainable development

• **University College London, Centre for Process Systems Engineering**

Post-Doctoral Research Associate

May 2016 – June 2018

Scientific software development for mathematical modelling of multiple classes of optimization problems (Python)

• **Imperial College London, Centre for Process Systems Engineering**

Post-Doctoral Research Associate

March 2015 – April 2016

Network Optimization and modelling (in Java) under sustainable development constraints

TEACHING • **ASSISTANT PROFESSOR IN COMPUTER SCIENCE, GOLDSMITHS UNIVERSITY, LONDON**

EXPERIENCE Key tasks

October 2023 – today

1. Supervising B.Sc Theses / FYP (5 students)

2. Module Leader: (~200+ students cohorts) : i) Machine Learning (online), ii) Computing Project 1 & iii) Algorithms I

• **LECTURER IN COMPUTER SCIENCE, UNIVERSITY OF GREENWICH, LONDON**

Key tasks

September 2022 – September 2023

1. Supervising B.Sc Theses / FYP (4 students) and M.Sc Dissertations (10 students)

2. Teaching (~200 students cohorts) : i) Web and intranet Content Management, ii) Systems Design & Development, iii) Software Tools & Techniques, iv) Advanced Programming, v) Big Data

• **MRC FELLOW, MSc HEALTH DATA ANALYTICS AND MACHINE LEARNING PROGRAMME**

DEPARTMENT OF EPIDEMIOLOGY & BIostatISTICS

SCHOOL OF PUBLIC HEALTH, IMPERIAL COLLEGE LONDON

Key tasks

July 2021 – today

Teaching/Supervision/Marking:

TRANSLATIONAL DATA SCIENCE II MODULE

(JAN-APRIL 2022)

3×45m / week

Project supervisor (experiential learning) for 12 M.Sc students on: *In-depth phenotyping of early vs late asthma cases in UK BioBank*

CERTIFICATES **Massachusetts Institute of Technology: Machine Learning with Python: from Linear Models to Deep Learning**, 2019.

<https://courses.edx.org/certificates/c9538249c8e24ac691de3e2f33e52c00>

- [1] Anna Tselioudis Garmendia, Ioannis Gkouzionis, **Triantafyllidis, C.P.**, Vasileios Dimakopoulos, Sotirios Liliopoulos, Marc H. Chadeau, *Towards personalised early prediction of Intra-Operative Hypotension following anesthesia using Deep Learning and phenotypic heterogeneity*, <https://www.medrxiv.org/content/10.1101/2023.01.20.23284432v1>, 2023.
- [2] L. Winchester, L. van Bijsterveldt, A. Dhawan, S. Wigfield, **C. Triantafyllidis**, S. Haider, A. McIntyre, T.C. Humphrey, A.L. Harris, F.M. Buffa, *A Dicer-to-Argonaute genomic switch regulates miRNA biogenesis in cancer*, doi: <https://doi.org/10.1101/2021.08.30.458145>, 2021.

- [1] **Triantafyllidis, C.P.**, Barberis, A., Hartley, F., Cuervo, A.M., Gjerga, E., Charlton, P., Van Bijsterveldt, L., Rodriguez, J.S., Buffa, F.M., A machine learning and optimization approach to uncover TP53 regulatory patterns, ISCIENCE (2023), doi: <https://doi.org/10.1016/j.isci.2023.108291>. (**impact factor: 6.107**) Q1
- [2] **C.P. Triantafyllidis** and Samaras N., *A new non-monotonic infeasible simplex-type algorithm for Linear Programming*, PeerJ Computer Science, 6:e265, 2020. DOI: <http://doi.org/10.7717/peerj-cs.265> (**impact factor: 3.061**) Q1.
- [3] **C.P. Triantafyllidis** and L.G. Papageorgiou, *An integrated platform for intuitive mathematical programming modeling using L^AT_EX*, PeerJ Computer Science, 4e:1612018, 2018. DOI: 10.7717/peerj-cs.161 (**impact factor: 3.061**) : top five most viewed in *Optimization Theory and Computation* section, Q1.
- [4] **C.P. Triantafyllidis**, R. Koppelaar, X. Wang, K.H. van Dam and N. Shah, *An integrated optimisation platform for sustainable resource and infrastructure planning*, Environmental Modelling & Software, Vol. 101C, pp. 146-168, 2018 (**impact factor: 4.9**), Q1.
- [5] X. Wang, M. Guo, K.H. van Dam, R.H.E.M. Koppelaar, **C.P. Triantafyllidis** and N. Shah, *A nexus approach for sustainable urban Energy-Water-Waste systems planning and operation*, Environmental Science & Technology (ACS), Vol : 52 (5), pp 3257–3266, 2018, (**impact factor: 11.4**), Q1.
- [6] Xiaonan Wang, Koen H. van Dam, **C.P. Triantafyllidis**, Rembrandt H.E.M. Koppelaar, and Nilay Shah, *Energy-Water Nexus Design and Operation towards the Sustainable Development Goals*, Computers & Chem. Engineering, 2019, DOI:10.1016/j.compchemeng.2019.02.007, (**impact factor: 4.3**) Q1.
- [7] N. Bieber, J. H. Ker, X. Wang, **C.P. Triantafyllidis**, K. H. van Dam, R.H.E.M. Koppelaar and N. Shah, *Sustainable planning of the Energy-Water-Food nexus using decision making tools*, Energy Policy, Vol. 113C, pp. 584-607, 2018 (**impact factor: 9**), Q1.
- [8] Koppelaar, R.H.E.M.; Sule, M.N.; Kis, Z.; Mensah, F.K.; Wang, X.; **C.P. Triantafyllidis**; Dam, K.H.; Shah, N. *Framework for WASH Sector Data Improvements in Data-Poor Environments, Applied to Accra, Ghana*. Water 2018, 10, 1278, Q2.
- [9] X. Wang, K. H. van Dam, **C.P. Triantafyllidis**, R.H.E.M. Koppelaar, N. Shah, *Water and Energy Systems in Sustainable City Development: A Case of Sub-saharan Africa*, In Procedia Engineering, Vol: 198, pp 948-957, 2017, Q2.
- [10] X. Wang, M. Guo, K. H. van Dam, R. H.E.M. Koppelaar, **C.P. Triantafyllidis** and N. Shah, *Waste-Energy-Water systems in sustainable city development using the resilience.io platform*, Proceedings of the 27th European Symposium on Computer Aided Process Engineering – ESCAPE 27 October 1st - 5th, Barcelona, Spain 2017.
- [11] X. Wang, K.H. van Dam, **C. Triantafyllidis**, R. Koppelaar, N. Shah. *Water and energy systems in sustainable city development*, Proceedings of the Urban Transitions Conference, Shanghai, September 2016.
- [12] Koen H. van Dam, Xiaonan Wang, Rembrandt H.E.M. Koppelaar, **Charalampos Triantafyllidis**, Wentao Yang and Nilay Shah. *Agent-based Modelling of Urban Water and Sanitation Infrastructure Use in GAMA, Ghana*, 1st workshop on Agent Based Modelling of Urban Systems (ABMUS2016) at AA-MAS2016, Singapore, May 2016.
- [13] A. Dominguez-Ramos, **C.P. Triantafyllidis**, Sh. Samsatli, N. Shah, and A. Irabien, *Renewable electricity integration at a regional level: Cantabria case study*, Proceedings of the 26th European Symposium on Computer Aided Process Engineering - ESCAPE 26, 2016.
- [14] **C.P. Triantafyllidis** and N. Samaras, *Three nearly scaling-invariant versions of an exterior point algorithm for Linear Programming*, Optimization: A Journal of Mathematical Programming and Operations Research, Vol. 64, No. 10, pp. 2163-2181, 15 May 2014 (**impact factor: 2.360**), Q1.
- [15] N. Samaras, A. Sifaleras, and **C.P. Triantafyllidis**, *A primal-dual exterior point algorithm for linear programming problems*, Yugoslav Journal of Operations Research, Vol. 19, pp. 123-132, 2009, Q4.
- [16] K. Paparrizos, N. Samaras, and **C.P. Triantafyllidis**, *A computational study of exterior point simplex algorithm variations*, Spetses, Greece, 19-21 June 2008, 20th Conference of the Hellenic Operational Research Society (EEEE), pp. 777-785.

MSC THESES
SUPERVISED
(1ST)

- [1] Dirou Malo, *Identification and characterization of asthma phenotypes using machine learning methods*, Imperial College London, School of Public Health, 2021.
- [2] Tselioudis Garmendia Anna, *Development of Machine and Deep Learning models for the early prediction of intraoperative complications*, Imperial College London, School of Public Health, 2022.
- [3] Venckus Martynas, *Automated annotation of biological networks by combining community detection and enrichment analyses*, Imperial College London, School of Public Health, 2022.
- [4] Francis Abosi, *The Impact Of AI On The Credibility Of Education In Higher Institutions* , University of Greenwich, 2023.
- [5] Ahmed Olawale Quadri, *Evaluation of the Impact of Cyber crime on Nigeria E-Banking Industry*, University of Greenwich, 2023.
- [6] Nusrath Jabin Chowdhury, *PregDays-Pregnancy Assistance Tracker*, University of Greenwich, 2023.
- [7] Praveen Gangaraju, *Identifying Cyberbullying Messages Using Sentiment Analysis*, University of Greenwich, 2023.
- [8] Wrenn Morris Vincent, *Performance of Summarization in News Classification*, University of Greenwich, 2023.
- [9] Srishti Silvaraj, *Book Recommendation System using ContentBased Filtering*, University of Greenwich, 2023.

BSC THESES
SUPERVISED
(1ST)

- [1] Rares-Cristian Neagu, *Epidemic study based on Community Detection algorithms*, University of Greenwich, 2023.
- [2] Kajen Vijeyaratnam Vigneswaran, *Feature-based Community Detection in Electroencephalography Data (EEG)* , University of Greenwich, 2023.
- [3] Taaleb Mubarak, *Product Matching*, University of Greenwich, 2023.
- [4] Valentina Voicu, *Predicting global temperature changes based on greenhouse gas emissions, precipitation, humidity, and global population using machine learning*, University of Greenwich, 2023.
- [5] Leon Renji Thehtai, *Prediction Of Automobile Sales Depending On Current Co2 Emission Rates Using Machine Learning Algorithms* , University of Greenwich, 2023.

INVITED TALKS

- [1] Title : *An integrated, model-based approach to evaluate WASH sector investment options*, UCL Institute for Sustainable Resources: Water SDGs and Future Water Management Symposium 8-9 Nov, 2016, London - UK.
- [2] Title : *Carbon Lock-in Curves and Southeast Asia: Implications for the Paris Agreement*, Oxford Martin School, 20 Sept, 2018, Oxford - UK.