Dionysis T. Manousakas

| CONTACT INFORMATION | FN06, William Gates Building, Computer Laboratory, University of Cambridge, 15 JJ Thomson Avenue, Cambridge CB3 0FD | **Email** : dm754@cam.ac.uk
https://www.cl.cam.ac.uk/~dm754
https://uk.linkedin.com/in/dionmanousakas
Phone: +44 (0)7587 753767 |

EDUCATION

UNIVERSITY OF CAMBRIDGE, DARWIN COLLEGE   **2016 − 2020**
Doctor of Philosophy (Ph.D.), Department of Computer Science & Technology,
Submitted in Oct. 2020
Thesis title: *Data Summarizations for Scalable, Robust and Privacy-Aware Learning*
                    in High Dimensions
Advisor: Prof. Cecilia Mascolo

UNIVERSITY COLLEGE LONDON   **2014 − 2015**
Master of Science (M.Sc.) in Machine Learning, Distinction
Thesis title: *Longitudinal Analysis of International Trade Data based on Network Theory*
                    and Machine Learning
Supervisor: Dr. Michael T. Schaub (Imperial College London)

NATIONAL TECHNICAL UNIVERSITY OF ATHENS   **2007 − 2014**
Diploma in Electrical & Computer Engineering (M.Eng., five-year degree), GPA: 8.66/10
Major in Control, Systems and Computer Science
Final year dissertation: *Decentralized Reconfigurable Multi-Robot Coordination from Local*
                    Connectivity and Collision Avoidance Specifications
Supervisor: Prof. Kostas J. Kyriakopoulos

Agios Stefanos High School, Greece, *June 2007* (GPA: 19.9/20.0, Valedictorian)

INTERNSHIPS & EMPLOYMENT

MAX PLANCK INSTITUTE FOR SOFTWARE SYSTEMS, **Research Intern**
Kaiserslautern & Saarbrücken, Germany, *May 2018 - Aug. 2018*
Research on privacy loss caused by information diffusion over networks, using multidimensional temporal point processes.
Stipend awarded by MPI. Advisor: Dr. Manuel Gomez-Rodriguez

NOKIA BELL LABS, **Research Intern**
Cambridge, UK, *Aug. 2017 - Oct. 2017*
Research project on probabilistic modeling of population's spatiotemporal activity, as member of the Internet of Things group. Patent submitted.

SMARTODDS, **Quantitative Analyst Intern**
London, UK, *Apr. 2016 - Oct. 2016*
Statistical analysis and development of machine learning methodologies, probabilistic modeling, ensembling techniques and software for predictions and betting in football and tennis.

MENTAT INNOVATIONS, **Data Scientist**
Athens, Greece, *Sept. 2015 - Jan. 2016*
Development of machine learning algorithms and software for on-the-fly analysis of streaming data, with applications in cybersecurity, financial forecasting, and fraud detection.

RESEARCH INTERESTS

Large-scale Machine Learning; Probabilistic Modeling and Bayesian Inference; Stochastic Optimization; Variational Methods; Differential Privacy; Information Geometry; Point Processes; Submodularity; Uncertainty Quantification; Dynamical Systems; Active Learning; AutoML; Bayesian Optimization; Trustworthy Inference and Robust Statistics; Data Valuation

PUBLICATIONS	• **D. Manousakas**, C. Mascolo. *β-Cores: Robust Large-Scale Bayesian Data Summarization in the Presence of Outliers*, Proceedings of the 14th ACM International Conference on Web Search and Data Mining, 2021.

• **D. Manousakas**, Z. Xu, C. Mascolo, T. Campbell. *Bayesian Pseudocoresets*, Advances in Neural Information Processing Systems, 2020.

• S. Bhattacharya, **D. Manousakas**, A.G.C.P. Ramos, S.I. Venieris, N.D. Lane, C. Mascolo. *Countering Acoustic Adversarial Attacks in Microphone-equipped Smart Home Devices*, Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies, 2020(4):1–24.

• **D. Manousakas**, C. Mascolo, A.R. Beresford, D. Chan, N. Sharma. *Quantifying Privacy Loss of Human Mobility Graph Topology*, Proceedings on Privacy Enhancing Technologies, Volume 2018(3): 5-21.

• Students of the course Parallel Processing Systems, School of Electrical & Computer Engineering, National Technical University of Athens. *Parallelizing the Floyd-Warshall Algorithm on Modern Multicore Platforms Lessons Learned*, 5th National Conference of Electrical and Computer Engineering Students, Xanthi, Greece, 2012.

PROFESSIONAL ACTIVITIES

TEACHING EXPERIENCE
• Supevisor of Computer Science Tripos, Part II Project on *Anonymized Data Linkability via Approximate Graph Matching*, Encho Mishinev (Robinson College), 2019-20
• Supevisor of Computer Science Tripos, Part II Project on *Traffic Monitoring under Differential Privacy*, Shubham Aggarwal (Churchill College), 2018-19
• Supevisor in *Artificial Intelligence* (Clare, Emmanuel, Selwyn, Wolfson and Jesus College), Computer Science Tripos, Part IB, Easter terms 2018 & 2019
• Supevisor in *Machine Learning and Bayesian Inference* (Peterhouse, St. John's, Christ's, Robinson, Queen's, Wolfson, Corpus Christi, Clare and King's College), Computer Science Tripos, Part II, Lent term 2018, Easter term 2019
• Supevisor in *Machine Learning and Real-world Data* (Gonville & Caius, Trinity Hall and Robinson College), Computer Science Tripos, Part IA, Lent term 2017
• Teaching Assistant in *Social and Technological Network Data Analytics*, Advanced Computer Science MPhil, Lent term 2017

CONFERENCES ATTENDED
• 14th ACM International WSDM Conference (to attend), Virtual, March 2021
• 34th Conference on Neural Information Processing Systems, Virtual, December 2020
• 37th International Conference on Machine Learning, Virtual, July 2020
• 2nd UK Mobile, Wearable and Ubiquitous Systems Research Symposium, Department of Computer Science, Oxford, UK, September, 2019
• 1st UK Mobile, Wearable and Ubiquitous Systems Research Symposium, Computer Laboratory, Cambridge, UK, September, 2018
• 18th Symposium on Privacy Enhancing Technologies, Barcelona, Spain, July 2018
• Course on Complex Networks and 2nd Symposium on Spatially Embedded Networks, Oriol College, Oxford, UK, September 2017
• 10th ACM International Conference on Web Search and Data Mining, Cambridge, UK, February 2017
• 3rd National Conference of Electrical and Computer Engineering Students, Thessaloniki, Greece, May 2010
• 2nd National Conference of Electrical and Computer Engineering Students, Athens, Greece, May 2009

REVIEWER
• Neural Information Processing Systems (NeurIPS)
• ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp)
• International ACM Web Science Conference (WebSci)
• ACM Transactions on Computing for Healthcare (Health)
• Royal Society Open Science

HONORS & AWARDS	• 2018 **Ford Foundation Travel Stipend**, 18th Symposium on Privacy Enhancing Technologies, Barcelona, Spain • 2016 **Three-year Stipend for Ph.D. Studies** awarded by the Nokia Bell Labs • 2016 **Dean's List for Outstanding Academic Performance 2014/15**, Faculty of Engineering, University College London • 2007 **EFG-Eurobank Honorary Plaque 'The Great Moment for Education'** awarded by the President of Democracy for achieving the highest score in Greece's National Higher Education Entrance Examination amongst examinees in Attica (19,809/20,000). Ranked **2nd** nationwide **over 33,174** candidates majoring in **Technology**. Ranked in **top-5** highest scores nationwide **among $\approx$ 93,000** candidates over **all specializations**. • 2007 **Georgios K. Kontaxis Award** for ranking 4th in Qualifying Examination for the School of Electrical & Computer Engineering, National Technical University of Athens • 2001-2007 **6 Double Honorary Diplomas from the Greek Ministry of Education** for excellence in my studies during the years of secondary education
COMPUTER SKILLS	• **Programming** – Python (PyTorch, TensorFlow), R, Stan, MATLAB, Mathematica, C/C++, Java, Julia, ML, Prolog • **IT Literacy** – LaTeX, Linux, PGF/TikZ, `git`, SQL
LINGUISTIC SKILLS	**Greek** (native), **English** (fluent - IELTS 8.0/9.0, TOEFL 104/120, ECPE), **German** (basic - Mittelstufe/C1, Goethe Institut), **Spanish** (conversant - DELE B2, Instituto Cervantes)
REFERENCES	Available upon request
MILITARY SERVICE	11/2012 - 08/2013 : Fulfilled mandatory 9 month service as soldier and office assistant at the Hellenic National Guard Artillery
LEISURE INTERESTS	Cinema, Literature, Tango, Hiking, Kayaking President of CU Darwin College Film Club, Member of CU Algorithmic Trading Society
FURTHER EDUCATION	**COURSERA** Game Theory, Bionformatics Algorithms - Part I, Computational Investing - Part I, Machine Learning, Control of Mobile Robots, Computational Neuroscience, Unpredictable? Randomness, Chance and Free Will **edX** Introduction to Probability - The Science of Uncertainty, Big Data and Social Physics