



Georgios METHENITIS

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 Amsterdam, Netherlands

Work Experience

- Jun. 2014 ~ Sep. 2014 **Internship, EUROPEAN SPACE AGENCY**
- Worked in the Advanced Concepts Team on the project "Novelty Search for Soft Robotic Space Exploration".
 - Applied novel evolutionary search methods for optimizing the morphology and gaits of soft-robots in varying gravity levels (video).
- Jan. 2013 ~ Mar. 2014 **Team Member, DUTCH NAO TEAM**
- Developed existed C++ codebase for the Aldebaran NAO robot and the Standard Platform League.
 - Participated (placed in top-16 and 3rd) in international and open Robocup Standard Platform League competitions.
- Oct. 2013 ~ Feb. 2014 **Teaching Assistant, UNIVERSITY OF AMSTERDAM**
- Assisted in teaching the course C++ programming language.
- Oct. 2013 ~ Feb. 2014 **Internship, VICARVISION**
- Designed and developed an algorithm for estimating floor plane from monocular camera footage based on human detection samples.

Education

- Feb. 2015 ~ Feb. 2019 **PhD candidate - CWI¹, DELFT UNIVERSITY OF TECHNOLOGY**
- Focusing on (electricity) markets, in which conflict of interest between strategic agents emerges in face of uncertainty (renewable power generation).
 - Multi-agent systems, game theory and mechanism design.
 - Supervised by: Prof. Han La Poutré (CWI and TU Delft) and Dr. Michael Kaisers (Researcher, CWI).
- Sep. 2012 ~ Dec. 2014 **MSc Artificial Intelligence - UNIVERSITY OF AMSTERDAM**
- Thesis: Evolution of Soft-Robots by Novelty Search, in collaboration with the Advanced Concepts Team in the European Space Agency (ESA), supervised by: Daniel Hennes (ESA), Dario Izzo (ESA) and Arnoud Visser (UvA).
- Sep. 2006 ~ Aug. 2012 **Diploma in Electronic and Computer Engineering - TECHNICAL UNIVERSITY OF CRETE**
- Thesis: Player Behavior and Team Strategy for the RoboCup 3D Simulation League, supervised by: Prof. Michael G. Lagoudakis
 - Developed the codebase (Java) for robot localization, locomotion, communication, strategy, and coordination.

Publications

- Georgios Methenitis, Michael Kaisers, and Han La Poutré. "Forecast-Based Mechanisms for Demand Response". In: *Proceedings of the 18th Conference on Autonomous Agents and MultiAgent Systems*. AAMAS '19. 2019
- Georgios Methenitis, Michael Kaisers, and Han La Poutré. "Degrees of Rationality in Agent-Based Retail Markets". In: *Computational Economics* (2019). (Submitted)
- Georgios Methenitis, Michael Kaisers, and Han La Poutré. "Renewable electricity trading through SLAs". In: *Energy Informatics* 11 (2018), p. 57
- Georgios Methenitis, Michael Kaisers, and Han La Poutré. "SLA-Mechanisms for Electricity Trading Under Volatile Supply and Varying Criticality of Demand". In: *Proceedings of the 16th Conference on Autonomous Agents and MultiAgent Systems*. AAMAS '17. Sao Paulo, Brazil: International Foundation for Autonomous Agents and Multiagent Systems, 2017
- Georgios Methenitis, Michael Kaisers, and Han La Poutré. "Incentivizing Intelligent Customer Behavior in Smart-Grids: A Risk-Sharing Tariff & Optimal Strategies". In: *Proceedings of the 25th International Joint Conference on Artificial Intelligence, IJCAI*. AAAI Press. 2016
- Georgios Methenitis, Michael Kaisers, and Han La Poutré. "A multi-scale energy demand model suggests sharing market risks with intelligent energy cooperatives". In: *Smart Grid Technologies - Asia (ISGT ASIA), 2015 IEEE*. 2015
- Georgios Methenitis, Daniel Hennes, Dario Izzo, and Arnoud Visser. "Novelty Search for Soft Robotic Space Exploration". In: *Proceedings of the 2015 Annual Conference on Genetic and Evolutionary Computation*. GECCO '15. Madrid, Spain: ACM, 2015
- Georgios Methenitis, Patrick M de Kok, Sander Nugteren, and Arnoud Visser. "Orientation finding using a grid based visual compass". In: *BNAIC*, 2013

Research Interests

- Multi-agent systems (learning/cooperation/competition)
- Machine learning and reinforcement learning for autonomous system applications
- Game theory & mechanism design
- Evolutionary algorithms for optimization

Technical Skills

PROGRAMMING	OS	IDEs	ROBOT PLATFORMS
Python (Tensorflow), C/C++ (Boost, OpenCV, STL, PCL, Qt, CMake), Java, C#, Matlab, HTML/CSS	GNU/Linux (Arch, Debian), MS Windows, MacOS	Eclipse, NetBeans, Qt Creator	Webots, Spark, Aldebaran NAO, Sony AIBO

¹CWI (Centrum Wiskunde & Informatica) is the national research institute for mathematics and computer science in the Netherlands.

*References are available upon request.