# Vassilis Vassiliades

Team Leader of the Learning Agents and Robots (LEAR) Multidisciplinary Research Group CYENS Centre of Excellence, Nicosia, Cyprus

v.vassiliades@cyens.org.cy • https://lear.cyens.org.cy/ • vassilisvas.github.io

#### EDUCATION

### • Ph.D. in Computer Science

Jan 2009 - Oct 2015

Department of Computer Science, University of Cyprus (UCY), Nicosia, Cyprus Thesis title: "Studies in Reinforcement Learning and Adaptive Neural Networks" Members of the Examination Committee: Dr. Chris Christodoulou (supervisor, University of Cyprus), Prof. Christos N. Schizas (University of Cyprus), Prof. Emeritus Chris Charalambous (University of Cyprus), Prof. Dr. Florentin Wörgötter (Georg-August-Universität Göttingen, Germany), Dr. Guido Bugmann (Plymouth University, UK)

## • M.Sc. in Intelligent Systems Engineering (with distinction)

Sep 2007 - Fall 2008

Department of Computer Science, University of Birmingham, Birmingham, UK Thesis title: "Neural Network Ensembles with Negative Correlation Learning" Supervisor: Dr. John Bullinaria

#### • B.Sc. in Computer Science

Sep 2003 - Jun 2007

Department of Computer Science, University of Cyprus (UCY), Nicosia, Cyprus Thesis title: "Multiagent Reinforcement Learning as Applied to General-Sum Games" Supervisor: Dr. Chris Christodoulou

### • Online Courses Completed:

Neural Networks for Machine Learning (Coursera, Fall 2012, taught by Prof. Geoffrey Hinton), Machine Learning class - advanced track (Stanford, Fall 2011, taught by Prof. Andrew Ng)

#### RESEARCH INTERESTS

Reinforcement Learning, Neural Networks, Machine Learning, Deep Learning, Neuroevolution, Evolutionary Computation, Artificial Intelligence, Robotics, Computational Neuroscience

### Publications

### • Refereed archival journal papers:

- 1. Demosthenous, G., Kyriakou, M., and Vassiliades, V. (2022). Deep Reinforcement Learning for Improving Competitive Cycling Performance. Expert Systems with Applications, 117311.
- 2. Ishikura, N., Kondo, D., **Vassiliades, V.**, Iordanov, I., and Tode, H. (2021). DNS Tunneling Detection by Cache-Property-Aware Features. *IEEE Transactions on Network and Service Management*, 18(2): 1203-1217.
- 3. Kondo, D., Vassiliades, V., Tode, H., and Asami, T. (2020). The Named Data Networking Flow Filter: Towards Improved Security over Information Leakage Attacks. *Computer Networks*, 173: 107187.
- 4. Chatzilygeroudis, K., **Vassiliades**, V., Stulp, F., Calinon, S., and Mouret, J.-B. (2019). A survey on policy search algorithms for learning robot controllers in a handful of trials. *IEEE Transactions on Robotics*, 36(2): 328-347.
- 5. Kondo, D., Silverston, T., **Vassiliades, V.**, Tode, H., and Asami, T. (2018). Name Filter: A Countermeasure against Information Leakage Attacks in Named Data Networking. *IEEE Access*, 6: 65151-65170.
- 6. Chatzilygeroudis, K., Vassiliades, V. and Mouret, J.-B. (2018). Reset-free Trial-and-Error Learning for Robot Damage Recovery. *Robotics and Autonomous Systems*, 100: 236-250.
- Vassiliades, V., Chatzilygeroudis, K. and Mouret, J.-B. (2017). Using Centroidal Voronoi
  Tessellations to Scale Up the Multidimensional Archive of Phenotypic Elites Algorithm. *IEEE Transactions on Evolutionary Computation*, 22(4): 623-630.
- 8. Vassiliades, V. and Christodoulou, C. (2016). Behavioral Plasticity Through the Modulation of Switch Neurons. *Neural Networks*, 74: 35-51.
- 9. Vassiliades, V. and Christodoulou, C. (2013). Toward Nonlinear Local Reinforcement Learning Rules Through Neuroevolution. *Neural Computation*, 25(11): 3020-3043.

- Kountouris, P., Agathocleous, M., Promponas, V., Christodoulou, G., Hadjicostas, S., Vassiliades, V. and Christodoulou, C. (2012). A comparative study on filtering protein secondary structure prediction. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 9(3): 731-739.
- 11. Vassiliades, V., Cleanthous, A. and Christodoulou, C. (2011). Multiagent Reinforcement Learning: Spiking and Nonspiking Agents in the Iterated Prisoner's Dilemma. *IEEE Transactions on Neural Networks*, 22(4): 639-653.

#### • Refereed papers in compiled volumes and full conference proceedings:

- 1. Dionysiou, A., Vassiliades, V. and Athanasopoulos, E. (2023). Exploring Model Inversion Attacks in the Black-box Setting. In Proceedings on Privacy Enhancing Technologies Symposium, 190–206.
- 2. Dionysiou, A., Vassiliades, V. and Athanasopoulos, E. (2021). HoneyGen: Generating Honeywords Using Representation Learning. In Proceedings of the 2021 ACM Asia Conference on Computer and Communications Security (ASIA CCS '21), 265-279.
- 3. Ishikura, N., Kondo, D., Iordanov, I., **Vassiliades, V.** and Tode, H. (2020). Cache-Property-Aware Features for DNS Tunneling Detection. In 23rd Conference on Innovation in Clouds, Internet and Networks (ICIN 2020).
- 4. Vassiliades, V. and Mouret, J.-B. (2018). Discovering the Elite Hypervolume by Leveraging Interspecies Correlation. In Proceedings of the Genetic and Evolutionary Computation Conference (GECCO), pp. 149–156. ACM.
- 5. Chatzilygeroudis, K., Rama, R., Kaushik, R., Goepp, D., Vassiliades, V. and Mouret, J.-B. (2017). Black-Box Data-efficient Policy Search for Robotics. In Proceedings of the 2017 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), pp. 51–58. IEEE.
- 6. Vassiliades, V., Chatzilygeroudis, K. and Mouret, J.-B. (2017). Comparing multimodal optimization and illumination. In Proceedings of the Genetic and Evolutionary Computation Conference Companion, pp. 97–98. ACM.
- 7. Vassiliades, V., Chatzilygeroudis, K. and Mouret, J.-B. (2017). A comparison of illumination algorithms in unbounded spaces. In Proceedings of the Genetic and Evolutionary Computation Conference Companion, pp. 1578-1581. ACM.
- 8. Papaspyros, V., Chatzilygeroudis, K., **Vassiliades**, **V.** and Mouret, J.-B. (2016). Safety-Aware Robot Damage Recovery Using Constrained Bayesian Optimization and Simulated Priors. In NIPS 2016 Workshop on Bayesian Optimization, https://arxiv.org/abs/1611.09419.
- 9. Agathocleous, M., Christodoulou, C., Promponas, V.J., Kountouris, P. and Vassiliades, V. (2016). Training Bidirectional Recurrent Neural Network Architectures with the Scaled Conjugate Gradient Algorithm. Artificial Neural Networks ICANN 2016, Lecture Notes in Computer Science, ed. by A.E.P. Villa, P. Masulli and A.J.P. Rivero, Springer, 9886: 123-131.
- Lambrou, I., Vassiliades, V. and Christodoulou, C. (2012). An Extension of a Hierarchical Reinforcement Learning Algorithm for Multiagent Settings. Recent Advances in Reinforcement Learning, EWRL 2011, Lecture Notes in Artificial Intelligence, ed. by S. Sanner and M. Hutter, Springer, 7188: 261-272.
- 11. Vassiliades, V. and Christodoulou, C. (2010). Multiagent Reinforcement Learning in the Iterated Prisoner's Dilemma: Fast Cooperation through Evolved Payoffs. *Proceedings of the International Joint Conference on Neural Networks (IJCNN'10)*, Barcelona, Spain, 2828-2835.
- Agathocleous, M., Christodoulou, G., Promponas, V., Christodoulou, C., Vassiliades, V. and Antoniou, A. (2010). Protein Secondary Structure Prediction with Bidirectional Recurrent Neural Nets: can weight updating for each residue enhance performance? AIAI 2010, ed. by H. Papadopoulos, A. S. Andreou and M. Bramer, IFIP International Federation for Information Processing AICT, 339: 128-137.
- 13. Vassiliades, V., Cleanthous, A. and Christodoulou, C. (2009). Multiagent Reinforcement Learning with Spiking and Non Spiking Agents in the Iterated Prisoner's Dilemma. *Artificial Neural Networks ICANN 2009, Lecture Notes in Computer Science*, ed. by C. Alippi, M. Polycarpou, C. Panayiotou, G. Ellinas, Springer, 5768: 737-746.

#### • Refereed book chapters:

 Chatzilygeroudis, K., Cully, A. Vassiliades, V. and Mouret, J.-B. (2021). Quality-Diversity Optimization: A Novel Branch of Stochastic Optimization. *Black Box Optimization, Machine Learning* and No-Free Lunch Theorems, Edited by: Panos Pardalos, Michael Vrahatis, Varvara Rasskazova, 109-135.

#### • Refereed abstracts and workshop papers:

- 1. Demosthenous, G. and Vassiliades, V. (2021). Continual Learning on the Edge with TensorFlow Lite. Findings of the CVPR2021 Workshop on Continual Learning in Computer Vision. https://arxiv.org/abs/2105.01946.
- 2. Vassiliades, V., Christodoulou, C., Cleanthous, A. and Lambrou, I. (2012). Explorations in Reinforcement Learning. Research Work of Postgraduate Students, Faculty of Pure and Applied Sciences, University of Cyprus, Nicosia, Cyprus, November 2012, Abstract for Poster P-28.
- 3. Agathocleous, M., Hadjicostas, S., Kountouris, P., Promponas, V., Vassiliades, V. and Christodoulou, C. (2011). Improving protein secondary structure prediction using evolutionary strategies and RBF networks. *Proceedings of the 6th Conference of the Hellenic Society for Computational Biology & Bioinformatics HSCBB11*, Patra, Greece, October 2011, p.34.
- 4. Agathocleous, M., Kountouris, P., Promponas, V., Christodoulou, G., Vassiliades, V. and Christodoulou, C. (2011). Training bidirectional recurrent neural networks with Conjugate gradient-type algorithms for protein secondary structure prediction. 19th International Conference on Intelligent Systems for Molecular Biology and 10th European Conference on Computational Biology (ISMB/ECCB), Vienna, Austria, July 2011, Abstract for Poster W67.
- Kountouris, P., Agathocleous, M., Promponas, V., Christodoulou, G., Hadjicostas, S., Vassiliades, V. and Christodoulou, C. (2011). A comparative study on filtering protein secondary structure prediction.
   19th Annual International Conference on Intelligent Systems for Molecular Biology and 10th European Conference on Computational Biology (ISMB/ECCB), Vienna, Austria, July 2011, Abstract for Poster W39.
- Kountouris, P., Agathocleous, M., Promponas, V., Christodoulou, G., Hadjicostas, S., Vassiliades, V. and Christodoulou, C. (2011). A comparative study on filtering protein secondary structure prediction. Proceedings of the 4th Cyprus Workshop on Signal Processing and Informatics, Nicosia, Cyprus, July 2011, p.13.
- Agathocleous, M., Christodoulou, G., Promponas, V., Christodoulou, C., Vassiliades, V. and Antoniou, A. (2010). Per residue weight updating procedure for Protein Secondary Structure Prediction with Bidirectional Recurrent Neural Networks. *Proceedings of the 3rd Cyprus Workshop on Signal Processing and Informatics*, Nicosia, Cyprus, July 2010, p. 23.
- 8. Vassiliades, V. and Christodoulou, C. (2010). Evolving internal rewards for effective multiagent learning in game theoretical situations. *Proceedings of the 3rd Cyprus Workshop on Signal Processing and Informatics*, Nicosia, Cyprus, July 2010, p. 22.
- 9. Vassiliades, V., Cleanthous, A. and Christodoulou, C. (2009). Multiagent Reinforcement Learning: Spiking and Non spiking Neural Network Agents. *Proceedings of the 2nd Cyprus Workshop on Signal Processing and Informatics*, Nicosia, Cyprus, July 2009, p. 16.

#### WORK EXPERIENCE

- Research Team Leader, CYENS Centre of Excellence (formerly known as RISE) Jun 2019 present I am leading the "Learning Agents and Robots" team at CYENS that conducts basic and applied research on innovative methodologies and algorithms for creating intelligent software and robotic agents that can (1) interact with humans and learn from them, (2) act autonomously by learning to solve tasks and (3) become highly adaptive to dynamic environmental changes.
- Associate Research Fellow, University of Cyprus Dec 2015 Nov 2019 Collaboration with Prof. Chris Christodoulou on machine learning projects and the supervision of students.
- Research Associate, RISE Feb 2019 May 2019
  I was part of the "Socially-Competent Robotic and Agent Technologies (SoCRATes) Multidisciplinary Research Group". My research focused on preference elicitation and neural-symbolic approaches for concept learning.
- Research Engineer, Inria, Nancy Grand Est

  Member of team LARSEN, working on the ERC-funded ResiBots project. The goal of the project is to provide the algorithmic foundations for low-cost robots that can autonomously recover from unforeseen damages in a few minutes. I also organized a journal club on subjects that involve evolution, development, learning and planning for robotics.
- Post-doctoral Researcher, Inria, Nancy Grand Est

  Member of team LARSEN, working on the ERC-funded ResiBots project.

  Dec 2015 Nov 2017
- Member of the Computational Intelligence and Neuroscience (CIN) Group,
  Department of Computer Science, UCY

  Jan 2009 Oct 2015

Research and development of C++ libraries on reinforcement learning, neural networks, evolutionary computation and computational intelligence. I also participated on a research project related to neural networks for bioinformatics; this project was funded by the Research Promotion Foundation of Cyprus.

- **Special Scientist**, Department of Computer Science, UCY

  Apr 2010 Mar 2012

  Full-time research on reinforcement learning, neuroevolution, multiagent learning, and neural networks.

  This project was funded by an internal research programme grant of UCY for which I co-wrote the proposal (see section "Research Grants").
- Special Scientist, Department of Computer Science, UCY

  Part-time research on multiagent reinforcement learning in general-sum games. This project was funded by an internal research grant of UCY.
- Software Developer, Department of Computer Science, UCY

  Development of project DITIS (http://www.ditis.ucy.ac.cy/) for desktop systems. I was working within a team to implement the GUI and the database.

#### TEACHING EXPERIENCE

• Instructor, Department of Computer Science, UCY

### - MAI612 - Machine Learning

Fall 2022

I was responsible for designing, developing and teaching this module (8 ECTS), as part of the new Masters in Artificial Intelligence of UCY, which is funded under the MAI4CAREU project (see Section "Grants" below). This module provided to students of varying backgrounds the fundamentals of the 3 main types of Machine Learning (supervised, unsupervised and reinforcement learning) both in theory and hands-on laboratory work and programming assignments.

- Teaching Assistant, Department of Computer Science, UCY
  - CS002 Introduction to Computer Science

Spring 2014

Course that introduces students from the Education department to basic concepts in Computer Science. I was responsible for the laboratory sessions that focused on skills such as using the Microsoft Office suite (Word, Excel, Powerpoint), and the Internet (web browsing, emails).

- CS442 - Computational Learning Systems

Fall 2009

Course that focused on *neural networks*: multilayer perceptrons, backpropagation, Kohonen self-organizing maps, radial basis function networks, Hopfield networks, Boltzmann machines and *reinforcement learning*. Held office hours, attended classes, corrected papers and independently lectured 28 students.

• Instructor, RISE Summer 2019 'STEM and Gaming' Scholars Program, RISE

July 2019

- Introduction to Artificial Intelligence

Course (1.5 hours) that made an introduction to artificial intelligence for high-school students.

• Instructor, "Gaming and Artificial Intelligence" RISE Summer Scholars Program, RISE

July 2020

- Defining Artificial Intelligence

Course (1.5 hours) that made an introduction to artificial intelligence for high-school students.

• Instructor, "Gaming and Artificial Intelligence" CYENS Summer Program, CYENS

July 2021

- Defining Artificial Intelligence

Course (1.5 hours) that made an introduction to artificial intelligence for high-school students.

• Instructor, "GameDev Camp" CYENS Summer Camps 2022, CYENS

July 2022

- Defining Artificial Intelligence

Course (1.5 hours) that made an introduction to artificial intelligence for high-school students.

#### Courses Preparation

#### • Machine Learning for the Industry, CYENS

July 2021

This was designed as a 3-day course where the first day was targetted towards executives and team leaders (in collaboration with PwC), while the last two days were more technical targetting data scientists of companies. I was responsible for most of the technical part that covered: Introduction to AI and ML, Data Collection and Preparation, and Model Development.

#### • European and Internationally Funded Projects

- Title: "Non-globular proteins in the era of Machine Learning" (ML4NGP).
  - \* COST Action (call: OC-2021-1)
  - \* Duration: 25 Oct 2022 24 Oct 2026 (48 months).
- Title: "Masters in AI for Careers in EU" (MAI4CAREU).
  - \* Connecting Europe Facility (CEF) Telecom 2020 (CEF-TC-2020-1 European Platform for Skills and Jobs)
  - \* Value: €887,772
  - \* Duration: Feb 2021 Jan 2024 (36 months).

### • Nationally Funded Projects

- Title: "Poultry Farm Intelligence" (PoultryFI).
  - \* Cyprus Research and Innovation Foundation (RIF) CO-DEVELOP grant
  - \* co-PI.
  - \* Value: €598,898.
  - \* Duration: TBA (24 months).
- Title: "Monitoring and Observing BEes in real-time by means of Smart BeeHIVEs" (BE-HIVE).
  - \* CYENS internal research grant.
  - \* co-PI.
  - \* Value: €50,000.
  - \* Duration: Mar 2022 Feb 2023 (12 months).
- I co-wrote the proposals for 2 machine learning projects for collaboration between RISE and the Cyprus Telecommunications Authority (CYTA).
  - \* Value: €112,000.
  - \* Duration: Oct 2019 Sep 2020 (12 months).
- Title: "Smart System for monitoring analysing and correcting body posture for cyclists" (Smart Cyclo)
  - \* Cyprus Research Innovation Foundation PRE-SEED Grant
  - \* Work Package leader
  - \* Value: €117,630.
  - \* Duration: Jun 2020 Nov 2021 (18 months).
- Title: "Can Evolutionary Spiking and Non-spiking Neural Networks yield more robust solutions for Multiagent Learning problems?".
  - \* UCY internal research programme grant (ranked 1st out of 17 in the Department of Computer Science).
  - \* I co-wrote (main contributor) the research proposal and was the named and main researcher on the project.
  - \* Value: €88,000.
  - \* Duration: Apr 2010 Mar 2012 (24 months).

#### • Travel Grants

- July 2012: Travel and accommodation costs for my team to Sydney, Australia fully covered by Microsoft to represent Cyprus in the international Imagine Cup competition.
- December 2012: Travel and accommodation costs to Frankfurt, Germany fully covered to attend the Frankfurt Institute for Advanced Studies (FIAS) "Winter School on Intrinsic Motivations - From Brains to Robots".

#### Ongoing industrial collaborations

#### • Sony Pictures Animation

since 2020

We are developing a ML solution around sketch retrieval from thousands of storyboards of animated movies, in order to accelerate the pre-production phase of new movies, thus, significantly reducing their cost. In particular, when the artists are drawing a new sketch, the smart system will retrieve similar sketches from which the artists can select and build upon, instead of drawing from scratch.

#### Honors and Awards

- 500 USD Microsoft Azure credits for "NeurIPS 2019: MineRL Competition".
- 200 USD Google Cloud Platform credits for "NeurIPS 2019: Learning to Move Walk Around challenge".
- My PhD thesis went through the finals (top 15) of the 2017 ERCIM Cor Baayen Award Competition.
- University of Cyprus scholarship for PhD students (2013-2014).
- EPSRC scholarship for the MSc Intelligent Systems Engineering programme at the University of Birmingham (2007-2008).

#### SUPERVISION

#### • Research Associates:

- 2020-present : Giorgos Demosthenous
  - \* Supervision rate: 100% (CYENS)
- 2020-2021 : Chloe Chira Continual Learning in Unsupervised and Supervised Settings
  - \* Supervision rate: 100% (CYENS)
- 2020-2021 : Carlo Cernicchiaro Explainable Shared Autonomy in Settings with Communication Problems
  - \* Supervision rate: 80% (with Loizos Michael, CYENS)

#### • BSc theses:

- 2021-2022 : Valentinos Pariza Fast Learning of Diverse Robotic Skills
  - \* Supervision rate: 90% (with Chris Christodoulou, UCY)
- 2021-2022: Konstantinos Christou Discovering the Possibilities of a Decoupled Grid Archive in Quality Diversity and Multimodal Optimization Problems
  - \* Supervision rate: 90% (with Chris Christodoulou, UCY)
- 2020-2021: Christodoulos Hadjichristodoulou Evolving switch-neuron networks
  - \* Supervision rate: 90% (with Chris Christodoulou, UCY)
- 2020-2021 : Christos Georgiou Learning structured exploration strategies through learned neuromodulated plasticity rules
  - \* Supervision rate: 90% (with Chris Christodoulou, UCY)
- 2019-2020 : Stelios Tymvios Deep reinforcement learning for hard exploration problems: lessons learnt
  - \* Supervision rate: 90% (with Chris Christodoulou, UCY)
- 2019-2020 : Chrysis Eftychiou Generalized neural architecture for artificial Tetris players
  - \* Supervision rate: 80% (with Chris Christodoulou, UCY)
- **2014-2015** : Jeannette Chahwan Modeling the evolution of self-control through pre-commitment
  - \* Supervision rate: 50% (with Chris Christodoulou, UCY)
- 2014-2015: Anna Georgiou Modeling the relationship between self-control and consciousness
  - \* Supervision rate: 50% (with Chris Christodoulou, UCY)
- 2014-2015 : Maria Kalli Hierarchical reinforcement learning
  - \* Supervision rate: 90% (with Chris Christodoulou, UCY)
- **2012-2013 : Eleni Kokkinofta -** Modelling the Greek-Turkish arms race with multiagent reinforcement learning
  - \* Supervision rate: 50% (with Chris Christodoulou, UCY)
- 2010-2011: Giannis Lambrou Multiagent hierarchical reinforcement learning
  - \* Supervision rate: 90% (with Chris Christodoulou, UCY)
- **2009-2010**: **Ioannis Karaolis** Modelling the Cyprus problem with multiagent reinforcement learning
  - \* Supervision rate: 50% (with Chris Christodoulou, UCY)

### • MSc theses:

- June 2022 September 2022 : Feilong Yan (MSc student at UCL) Deep Reinforcement Learning for Advanced Quadrupedal Robot Locomotion from Vision
  - \* Supervision rate: 100%

- 2014-2015: Irene Petri Higher order learning algorithms for training bi-directional recurrent neural networks on the problem of protein secondary structure prediction
  - \* Supervision rate: 40% (with Chris Christodoulou and Michalis Agathocleous, UCY)

### • Internships:

- June 2022 July 2022: Valentinos Pariza Fast Learning of Diverse Robotic Skills
  - \* Supervision rate: 100%
- June 2022 September 2022: Konstantinos Christou Accelerated Quality Diversity
   Optimization using Improved Selection and Variation Operators
  - \* Supervision rate: 100%
- May 2022 June 2022: Navish Kumar Accelerating Quality Diversity Optimization
  - \* Supervision rate: 100%
- April 2022 September 2022: Satya Prakash Dash Deep Reinforcement Learning for Advanced Quadrupedal Robot Locomotion from Vision
  - \* Supervision rate: 100%
- July 2021 August 2021: Georgios Apostolides (MSc student in Robotics at TU Delft) -SLAM using a Quadruped Robot
  - \* Supervision rate: 100%
- November 2020 April 2021 : Vladimir Khon (MEng Imperial College London, UK) Damage recovery for the Unitree A1 quadruped robot
  - \* Supervision rate: 100%
- June 2020 August 2020 : Mohammad Mansour (BSc student from the American University of Beirut, Lebanon) - Learning to navigate in 3D environments
  - \* Supervision rate: 100%
- June 2020 July 2020 : Stelios Tymvios (BSc student from the University of Cyprus,
   Cyprus) Ensemble negative correlation reinforcement learning
  - \* Supervision rate: 100%
- June 2019 August 2019 : Bassel Musharrafieh (BSc student from the American University of Beirut, Lebanon) - Molecular property prediction using machine learning
  - \* Supervision rate: 100%
- June 2019 August 2019 : Mohammad Mansour (BSc student from the American University of Beirut, Lebanon) - Incremental Concept Learning Agent
  - \* Supervision rate: 75% (with Loizos Michael, RISE and Open University of Cyprus)

### • Competitions:

- 2012: Microsoft Imagine Cup competition Team 'BrightSight'
  - \* Developed a messenger application on Android for blind people (using Braille).
  - \* Other team members: Vasilis Mitrousis and Aris Paphitis (MSc students at UCY).
  - \* Our team won the local competition and represented Cyprus in the international competition in Sydney, Australia (July 2012).

### PROFESSIONAL ACTIVITIES

#### • Reviewer (journals):

- Expert Systems with Applications (2022)
- IEEE Control Systems Letters (2022)
- IEEE Transactions on Automation Science and Engineering (2021, 2022)
- Frontiers in Robotics and AI (2021)
- IEEE Transactions on Robotics (2020)
- IEEE Robotics & Automation Letters (2019)
- International Journal of Control, Automation and Systems (2019)
- PLOS One (2018)
- Computer Vision and Image Understanding (2017)
- IEEE Transactions on Neural Networks and Learning Systems (2013)
- International Journal of Computer Mathematics (2011)
- Physics Letters A (2011)

- IEEE Transactions on Neural Networks (2010)
- WSEAS Transactions on Systems and Control (2010)

### • Reviewer (conferences/workshops):

- IEEE Conference on Decision and Control (CDC 2022)
- IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2017, 2020, 2021)
- The Genetic and Evolutionary Computation Conference (GECCO 2019, 2020)
- International Conference on Informatics for Environmental Protection (EnviroInfo 2020)
- 2nd International Workshop on Intelligent Systems for the Internet of Things (ISIoT 2020)
- International Conference on Robotics and Automation (ICRA 2018, 2019)
- International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2019)
- NIPS Workshop on Bayesian Optimization (BayesOpt 2017)
- 25th International Conference on Artificial Neural Networks (ICANN 2016)
- 9th International Conference on Artificial Intelligence Applications and Innovations (AIAI 2013)

### • Program Committee Member:

- International Workshop on Intelligent Systems for the Internet of Things (ISIoT 2020, 2022)
- International Conference on Informatics for Environmental Protection (EnviroInfo 2020)
- The Genetic and Evolutionary Computation Conference (GECCO 2019, 2020)
- 9th International Conference on Artificial Intelligence Applications and Innovations (AIAI 2013)
- 1st Workshop on Computational Intelligence for Critical Infrastructure Systems (part of AIAI 2013)

### • Membership (professional/research networks):

- Confederation of Laboratories for Artificial Intelligence Research in Europe (CLAIRE)
- ContinualAI community
- Crowdhelix platform
- ACM Special Interest Group on Genetic and Evolutionary Computation (SIGEVO)
- Volunteering: Neural Coding Workshop 2010, Limassol, Cyprus.

### PRESENTATIONS AND PARTICIPATION AT CONFERENCES/WORKSHOPS/SCHOOLS/COMPETITIONS

- July 2022 Presentation at "GameDev Camp" CYENS Summer Camps 2022, Nicosia, Cyprus.
- July 2021 Presentation at "Gaming and Artificial Intelligence" CYENS Summer Program, Nicosia, Cyprus.
- December 2020 Presentation on "AI and Robotics" at "Virtual Career Academy" of the Youth Board of Cyprus, Nicosia, Cyprus.
- July 2020 Presentation at "Gaming and Artificial Intelligence" RISE Summer Scholars Program, Nicosia, Cyprus.
- July 2019 Presentation at RISE Summer 2019 'STEM and Gaming' Scholars Program, Nicosia, Cyprus.
- May 2019 Attended the 2nd Reflect Festival, Limassol, Cyprus.
- July 2018 Oral presentation at the Annual Genetic and Evolutionary Computation Conference (GECCO 2018), Kyoto, Japan.
- July 2017 Oral and Poster presentations at the Annual Genetic and Evolutionary Computation Conference (GECCO 2017), Berlin, Germany.
- March 2013 Attended the TEDxNicosia conference, Nicosia, Cyprus.
- January 2013 Attended the 2nd Neuroscience Across Disciplines Workshop (NAD13), Nicosia, Cyprus.
- December 2012 Attended the Winter School on "Intrinsic Motivations: From Brains to Robots", Frankfurt Institute for Advanced Studies (FIAS), Frankfurt, Germany.
- July 2012 Presentation at Microsoft's Imagine Cup competition, Sydney, Australia.
- January 2012 Attended the 1st Neuroscience Across Disciplines Workshop (NAD12), Nicosia, Cyprus.
- September 2011 Oral presentation at the 9th European Workshop on Reinforcement Learning (EWRL9), Athens, Greece.
- July 2011 Attended the 13th Annual Genetic and Evolutionary Computation Conference (GECCO 2011), Dublin, Ireland.
- October-November 2010 Attended the 9th International Neural Coding Workshop (NC2010), Limassol, Cyprus.

- July 2010 Oral presentation at the International Joint Conference on Neural Networks (IJCNN) part of the World Congress on Computational Intelligence (WCCI), Barcelona, Spain.
- July 2010 Oral presentation at the 3rd Cyprus Workshop on Signal Processing and Informatics, Nicosia, Cyprus.
- September 2009 Oral presentation at the 19th International Conference on Artificial Neural Networks (ICANN 2009), Limassol, Cyprus.
- July 2009 Oral presentation at the 2nd Cyprus Workshop on Signal Processing and Informatics, Nicosia, Cyprus.
- July 2007 Attended the "Cyprus Summer School on Intelligent Systems", UCY, Nicosia, Cyprus.

### TECHNICAL SKILLS

C++11, Python, MATLAB, Java, I₄TFX, C#, Visual Basic .NET, HTML/CSS, PHP, R, Prolog, SQL

#### LANGUAGES

Greek (native), English (excellent knowledge), French (basic knowledge)