

# Curriculum Vitae (EN)

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## Nikolaos Tziortziotis

### Personal Information

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<b>Address</b>	LIX, Bâtiment Alan Turing École Polytechnique 91120 Palaiseau, France	<b>Mobile Phone</b>	+33763102131
<b>Nationality</b>	Hellenic (Greece)	<b>Email</b>	ntziorzi@gmail.com
		<b>Website</b>	<a href="https://goo.gl/vCPukm">https://goo.gl/vCPukm</a>

### Working Experience

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**2015-** Postdoctoral researcher, Computer Science Laboratory (LIX), Data Science and Mining (DaSciM) group, École Polytechnique, Paris, France.

### Education

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**2010-2015** PhD in Computer Science, Department of Computer Science & Engineering, University of Ioannina, Greece. PhD Thesis: *Machine Learning for Intelligent Agents*.

**2012-2013** Exchange Doctoral Student, Department of Computer Science, École Polytechnique Fédérale de Lausanne (EPFL), LIA Laboratory, Switzerland.

**2008-2010** MSc in Computer Science, Department of Computer Science, University of Ioannina, Greece. MSc Thesis: *Autonomous Mobile Robot Navigation using Reinforcement Learning*.

**2002-2007** BSc in Computer Science, Department of Computer Science, University of Ioannina, Greece.

### Research Interests

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Machine Learning, Reinforcement Learning, Decision Making under Uncertainty, Influence Maximization

### Publications

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#### Journals

- J1.** J. Read, N. Tziortziotis and M. Vazirgiannis *Error-space Representations for Multi-dimensional Data-Streams*, **Pattern Analysis and Applications**, under minor revision.
- J2.** C. Giatsidis, F. D. Malliaros, N. Tziortziotis, C. Dhanjal, E. Kiagias, D. M. Thilikos and M. Vazirgiannis *A k-core Decomposition Framework for Graph Clustering*, in **Knowledge and Information Systems**, under revision.
- J3.** N. Tziortziotis, G. Papagiannis and K. Blekas, *A Bayesian Ensemble Regression Framework on the Angry Birds Game*, **IEEE Transactions on Computational Intelligence and AI in Games**, 8(2):104-115, 2016.
- J4.** N. Tziortziotis, C. Dimitrakakis and K. Blekas, *Cover Tree Bayesian Reinforcement Learning*, **Journal of Machine Learning Research**, (15):2313-2335, 2014.

#### Magazines

- M1.** C. Dimitrakakis, G. Li and N. Tziortziotis, *The Reinforcement Learning Competition*, **Artificial Intelligence (AI) Magazine**, (35):61-65, 2014.

## Conferences

- C1. G. Salha\*, N. Tziortziotis\*, M. Vazirgiannis, *Adaptive Submodular Influence Maximization with Myopic Feedback*, submitted to 27<sup>th</sup> International Joint Conference on Artificial Intelligence (**IJCAI**), Stockholm, Sweden, 2018. \* These authors contributed equally to this work.
- C2. M. G. Rossi, B. Shi, N. Tziortziotis, F.D. Malliaros, C. Giatsidis, and M. Vazirgiannis, *MATI: An Efficient Algorithm for Influence Maximization in Social Networks*, in the 6<sup>th</sup> International Conference on Complex Networks and Their Applications (**Complex Networks**), Lyon, France, November 2017.
- C3. N. Tziortziotis, C. Dimitrakakis, *Bayesian Inference for Least Squares Temporal Difference Regularization*, in the 27<sup>th</sup> European Conference on Machine Learning (**ECML 2017**), Skopje, FYROM, September 2017.
- C4. K. Tziortziotis, N. Tziortziotis, K. Vlachos and K. Blekas, *Autonomous navigation of an over-actuated marine platform using reinforcement learning*, in the 9<sup>th</sup> Hellenic Conference on Artificial Intelligence (**SETN 2016**), Thessaloniki, Greece, May 2016. **Best Student Paper Award**.
- C5. K. Pandremmenou, N. Tziortziotis, S. Paluri, W. Zhang, K. Blekas, L. P. Kondi and S. Kumar, *Quality Optimization of H.264/AVC Video Transmission over Noisy Environments Using a Sparse Regression Framework*, in Visual Information Processing and Communication VI, Proceedings of SPIE-IS & T Electronic Imaging (**SPIE 2015**), San Francisco, CA, February 2015.
- C6. C. Dimitrakakis and N. Tziortziotis, *Usable ABC Reinforcement Learning*, in the Advances in Neural Information Processing Systems 27 (**NIPS 2014**), ABC in Montreal workshop, Montreal, Canada, December 2014.
- C7. N. Tziortziotis, G. Papagiannis and K. Blekas, *A Bayesian Ensemble Regression Framework on the Angry Birds Game*, in the 21<sup>st</sup> European Conference on Artificial Intelligence (**ECAI 2014**), Symposium on Artificial Intelligence in Angry Birds, Prague, Czech Republic, August 2014. **Second (2<sup>nd</sup>) prize on the the AIBIRDS Competition**.
- C8. N. Tziortziotis, K. Tziortziotis and K. Blekas, *Play Ms. Pac-Man using an Advanced Reinforcement Learning Agent*, in the 8<sup>th</sup> Hellenic Conference on Artificial Intelligence (**SETN 2014**), Ioannina, Greece, May 2014.
- C9. C. Dimitrakakis and N. Tziortziotis, *ABC Reinforcement Learning*, in the 30<sup>th</sup> International Conference on Machine Learning Learning (**ICML 2013**), Atlanta, USA, June 2013.
- C10. N. Tziortziotis, C. Dimitrakakis and K. Blekas, *Linear Bayesian Reinforcement Learning*, in the 23<sup>rd</sup> International Joint Conference on Artificial Intelligence (**IJCAI 2013**), Beijing, China, August 2013.
- C11. K. Pandremmenou, N. Tziortziotis, L. P. Kondi and K. Blekas, *Resource Allocation in Visual Sensor Networks Using a Reinforcement Learning Framework*, in the 18<sup>th</sup> IEEE International Conference on Digital Signal Processing (**DSP 2013**), Santorini, Greece, July 2013.
- C12. N. Tziortziotis and K. Blekas, *Model-based Reinforcement learning using online clustering*, in the 24<sup>th</sup> IEEE International Conference on Tools with Artificial Intelligence (**ICTAI 2012**), Pireus, Greece, November 2012.
- C13. N. Tziortziotis and K. Blekas, *An online kernel-based clustering approach for value function approximation*, in the 7<sup>th</sup> Hellenic Conference on Artificial Intelligence (**SETN 2012**), Lamia, Greece.
- C14. N. Tziortziotis and K. Blekas, *A Bayesian Reinforcement Learning framework using Relevant Vector Machines*, in the 25<sup>th</sup> AAAI Conference on Artificial Intelligence (**AAAI 2011**), San Francisco, USA, August 2011.
- C15. N. Tziortziotis and K. Blekas, *Value Function Approximation through Sparse Bayesian Modeling*, in the 9<sup>th</sup> European Workshop on Reinforcement Learning (**EWRL-9**), Athens, Greece, September 2011.

## Dissertations

- D1. N. Tziortziotis, *Machine Learning for Intelligent Agents*, **PhD. Thesis**, Department of Computer Science & Engineering, University of Ioannina, Greece, March 2015. [http://www.cs.uoi.gr/tech\\_reports/publications/PD-2015-4.pdf](http://www.cs.uoi.gr/tech_reports/publications/PD-2015-4.pdf)
- D2. N. Tziortziotis, *Autonomous Mobile Robot Navigation using Reinforcement Learning*, **MSc. Thesis**, Department of Computer Science, University of Ioannina, Greece, September 2010.

## PC Member

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**Conferences:** ECML-PKDD (2018), ICIP (2018), SocInf+MAISoN (2018), BigNet (2018), ECML-PKDD (2017), IJCAI (2017), AAAI (2017), SOMERIS (2016), ICANN (2014), SETN (2014), WRLCOMP (2013)

**Journals:** Neurocomputing, IEEE Trans. on Cybernetics

## External Reviewer

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**Conferences:** ICPR (2018), WWW (2017), WSDM (2017), CIKM (2016), ICANN (2014), SETN (2014), AAAI (2013), EUSIPCO (2013), DSP (2013)

**Journals:** Neural Computing and Applications

## Teaching Experience

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- 2018** Lecturer (Teaching coordinator), Computer Science Laboratory (LIX), École Polytechnique, Paris, France.
- INF581 - Advanced Topics in Artificial Intelligence
- 2017** Teaching Assistant, Computer Science Laboratory (LIX), École Polytechnique, Paris, France.
- INF554 - Machine learning I
- 2016** Teaching Assistant, Computer Science Laboratory (LIX), École Polytechnique, Paris, France.
- M2 Data Science: Methods for Big Data Analytics.
  - INF554 - Machine learning I.
- 2015** Teaching Assistant, Computer Science Laboratory (LIX), École Polytechnique, Paris, France.
- INF582 - Data Science, Learning from Data.
- 2008-2015** Teaching Assistant, Department of Computer Science, University of Ioannina, Greece. Courses:
- Probability Theory (2010-2015).
  - Principles of Programming Languages (2008-2010).
- 2010-2011** Instructor, Institute of Vocational Training of Ioannina, Greece. Courses:
- Introduction to Computer Science (2011).
  - Operating Systems (2010).

## Students supervised/mentored

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### PhD Candidates

- 2015-** Konstantinos Skianis, *Representations, Regularization and Visualization for text and graph data*, LIX, École Polytechnique, Paris, France (main supervisor: Prof. M. Vazirgiannis).
- 2015-2017** Maria Rossi, *Graph Mining for Influence Maximization in Social Networks*, LIX, École Polytechnique, Paris, France (main supervisor: Prof. M. Vazirgiannis).

## MSc Students

- 2016-2017** Guillaume Salha, *Adaptive Submodular Influence Maximization with Myopic Feedback*, ENS Cachan, Paris, France (co-supervisor: Prof. M. Vazirgiannis).
- 2016-2017** Guokan Shang, *Approximate Reinforcement Learning with Mixture of Experts*, Paris-Sud, Paris, France (co-supervisor: Prof. M. Vazirgiannis).
- 2015-2016** Konstantinos Tziortziotis, *Autonomous navigation of an over-actuated marine platform using reinforcement learning techniques*, University of Ioannina, Greece (main supervisor: Prof. K. Blekas).
- 2014-2015** Georgios Papagiannis, *A Bayesian Ensemble Regression Framework on the Angry Birds Game*, University of Ioannina, Greece (co-supervisor: Prof. K. Blekas).

## Competition Organization

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- 2016** Co-organizer of the AXA 2016 Data Challenge. Computer Science Laboratory (LIX), École Polytechnique, Paris, France.
- 2015** Co-organizer of the AXA 2015 Data Challenge. Computer Science Laboratory (LIX), École Polytechnique, Paris, France.
- 2013** Co-organizer of the revived Reinforcement Learning Competition. ICML Workshop on the Reinforcement Learning Competition (**WRLCOMP**), Atlanta, USA, June 2013.

## Conference Organization

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- 2014** Organizing committee on the 8<sup>th</sup> Hellenic Conference on Artificial Intelligence (**SETN**), Ioannina, Greece, May 2014.
- 2013** Co-organizer of the revived Reinforcement Learning Competition. ICML Workshop on the Reinforcement Learning Competition (**WRLCOMP**), Atlanta, USA, June 2013.

## Skills

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C++, Python, Java, Matlab.

## Scholarships

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- 2014** Travel grant for participation in the 21<sup>st</sup> European Conference on Artificial Intelligence (ECAI).
- 2013** Travel grant for participation in the 23<sup>rd</sup> International Joint Conference on Artificial Intelligence (IJCAI).
- 2011** Travel grant for participation in the 25<sup>th</sup> AAAI Conference on Artificial Intelligence (AAAI).
- 2009-2014** Fellowship for graduate studies at the Department of Computer Science, University of Ioannina, Greece.

## Volunteering

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- 2011** Volunteer in the 21<sup>st</sup> European Conference on Machine Learning (**ECML**), Athens, Greece, September 2011.

## Languages

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**English** Certificate of Proficiency in English (ECPE), University of Michigan, 2015.

**Greek** Mother tongue.

**French** Beginner.