Personal details
Last Name: Nikoloutsopoulos
First Name : Sotirios
Date of Birth: March 28th 1994
E-mail Address : sotirisnik@gmail.com / snikolou@aueb.gr
Nationality : Greek

Education:

- **PhD in Artificial Intelligence,** Department of Informatics, Athens University of Economics and Business (AUEB), Greece, 12/2017-12/2024.
  - o **Thesis title**: Federated, Continual and Meta-Learning Algorithms for Multi-task Settings
- **BSc. in Mathematics**, National & Kapodistrian University of Athens, Greece, 2024-**Present**.
- **MSc in Data Science**, Athens University of Economics and Business (AUEB), Greece, 2016-2017.
  - ◦ **Thesis title**: Deep reinforcement learning for playing games
- **Bsc in Computer Science**, University of Piraeus, Greece, 2012-2016.
  - ◦ **Thesis title**: OCR for Trading Card Games

Areas of study:

- Federated Learning
- Continual Learning
- Meta-Learning
- Reinforcement Learning

Papers:

Conferences

- o Michalis K. Titsias, Francisco J. R. Ruiz, Sotirios Nikoloutsopoulos, Alexandre Galashov, "Information Theoretic Meta Learning with Gaussian Processes", Proceedings of the Thirty-Seventh Conference on Uncertainty in Artificial Intelligence (UAI 2021).
- o Sotirios Nikoloutsopoulos, Iordanis Koutsopoulos, Michalis Titsias (2024), "Kullback-Leibler Reservoir Sampling for Fairness in Continual Learning", IEEE International Conference on Machine Learning for Communication and Networking, 2024, Stockholm, Sweden.

Journals

- o Sotirios Nikoloutsopoulos, Iordanis Koutsopoulos, Michalis Titsias (2025), "Personalized Federated Learning with Exact Stochastic Gradient Descent", Applied Intelligence (Springer), Volume 55, Article number 1123.

Workshops

- o Sotirios Nikoloutsopoulos, Iordanis Koutsopoulos, Michalis Titsias (2022), "Online Continual Learning from Imbalanced Data with Kullback-Leibler-loss based replay buffer updates", NeurIPS 2022 Workshop on Human in the Loop Learning, New Orleans, USA.
- o Sotirios Nikoloutsopoulos, Iordanis Koutsopoulos, Michalis Titsias (2023), "Personalized Federated Learning with Exact Distributed Stochastic Gradient Descent Updates", Adaptive and Learning Agents Workshop at AAMAS, London, UK.

Preprints

- o Michalis Titsias, Sotirios Nikoloutsopoulos (2018), "Bayesian Transfer Reinforcement Learning with Prior Knowledge Rules ", cs arXiv:1810.00468.

Professional Experience:

- **Hellenic Research Technological Development and Innovation Center (KETAK),** Athens, Greece, April 2025 – March 2026, Researcher (Military Service – Second Lieutenant).
- **AUEB**, Athens, Greece, May 2021 - Apr 2023, Researcher in the Research Project "Holistic and foundational resource allocation framework for optimized and impactful edge computing services – LeadingEdge".
- **Human Brain Project**, Athens, Greece, July 2019 – December 2020, Software engineer "LORIS setup for the hospitals that have joined the Medical Informatics Platform of Human Brain Project".
- **Human Brain Project,** Athens, Greece, January 2018 – March 2018, Software engineer "Query rewriting for Ontology Based Data Access".

Technical skills:

Tensorflow, Jax, Haiku, Pytorch,Jupyter, PHP, MySQL, Postgresql, HTML5, CSS3, Javascript, Jquery,

C/C++, OpenGL, SDL, Visual Basic, Visual C++, Robot C (Lego Mindstorms), Arduino, Qbasic, Pascal, Python, R, ActionScript, Java, Matlab C#, Blender 3d, 3ds max, Clip Studio Paint.

Awards:

- Scholarship seat for 1st International Summer School on Artificial Intelligence and Games, 2019
- Undergraduate Oath 2016
- Deputy team member for Junior Balkan Olympiad of Informatics 2009

Teaching Experience:

- Operating Systems, Spring semester, 2018
- Machine Learning, Spring semester, 2019
- Introduction to Computer Programming, Fall semester, 2019
- Machine Learning, Spring semester, 2020
- Computational Mathematics, Fall semester, 2020
- Machine Learning, Spring semester, 2021
- Probability, Spring semester, 2022
- Machine Learning, Fall semester, 2022
- Mathematics I, Fall semester, 2023
- Probability, Spring semester, 2024