# Konstantinos Emmanouilidis

Website | Email | Linkedin | Github

### **RESEARCH INTERESTS**

(Multi-agent) Optimization, Machine Learning Theory, Game Theory, Theoretical Computer Science

#### **EDUCATION**

•	Johns Hopkins University (JHU) PhD Candidate, Department of Computer Science Advisors: Nicolas Loizou, Rene Vidal (UPenn)	05/2024 - current
•	Johns Hopkins University (JHU) Master in Computer Science	08/2022 - 05/2024
•	Democritus University Of Thrace (DUTH)  BSc & MSc in Electrical and Computer Engineering  Grade: 9.51 / 10.00 (top 0.001% in university's history)  Advisor: Pavlos Efraimidis	10/2016 - 07/2021

#### **HONORS & AWARDS**

•	JHU Mathematical Institute for Data Science Fellowship	2023, 2024
•	IEEExtreme 14.0 Programming Competition, top 10% worldwide	10/2020
•	International Mathematical Competition (IMC), Bronze Medal	07/2019
•	South Eastern European Mathematical Olympiad (SEEMOUS), Bronze Medal	03/2019
•	IEEE Region 8 Acceleration Entrepreneurship Program, 1st place	12/2018
•	South Eastern European Mathematical Olympiad (SEEMOUS), Bronze Medal	03/2018
•	NASA Space Apps Larisa, 3rd place	03/2017

#### **EXPERIENCE**

#### GRASP Lab, University of Pennsylvania (UPenn)

08/2024 - current

- Visiting Student in Rene Vidal's Lab
- Working on Robustness of Deep Networks through LLM's and Semantic Information

## Optimization & ML Lab, Johns Hopkins University (JHU)

08/2022 - 07/2024

- Research Assistant in Professor Nicolas Loizou' Lab
- Worked on Large Scale Optimization Methods for Multi-agent problems

### CoReLab, National Technical University of Athens (NTUA)

08/2020 - 07/2021

- Advisor: Dimitris Fotakis
- Worked on opinion dynamics and characterised their convergence in graphs

## **PUBLICATIONS & RESEARCH PROJECTS**

• Stochastic Extragradient with Random Reshuffling: Improved Convergence for Variational Inequalities

Konstantinos Emmanouilidis, Rene Vidal, Nicolas Loizou , AISTATS 2024

• Opinion Dynamics in Graphs with Hidden Links, Undergraduate thesis, w/ Dimitris Fotakis, Pavlos Efraimidis

### **TEACHING EXPERIENCE**

•	Optimization for Data Science, JHU, Prof. Nicolas Loizou	08/2023 - 12/2023
•	Algorithms and Data Structures DUTH Prof Paylos Efraimidis	10/2020 - 02/2021

## **TECHNICAL SKILLS**

- *Python, C++ (intermediate)*
- Web: HTML, CSS, JavaScript, php (advanced)
- Frameworks: PyTorch, Numpy, TensorFlow

## **PROFESSIONAL SERVICE**

- Reviewer: ICML 2024, ICLR 2024, JMLR 2024
- Organizer: Workshop on Machine Learning and Optimization, IEEE CISS 2023
- Volunteering:

○ DeepMath Conference	2024
o Chairman, IEEE DUTH Student Branch	06/2019 - 08/2020
Founder of IEEE DUTH Computer Chapter	12/2019
O Vice Chair for Technical Activities, IEEE DUTH Student Branch	11/2018 - 05/2019
• Coordinator of "Learning to Code with Python" team, IEEE DUTH SB	10/2017 - 05/2018

## **MISCELLANEOUS**

- Languages: English, German, French, Greek
- Interests/Hobbies: Piano, Guitar