

Nikolaos Kougioulis

Education

Sep 2022 – Nov 2025 **MSc in Computer Science & Engineering**, Department of Computer Science, University of Crete, Greece.

Thesis: *Large Causal Models for Temporal Causal Discovery*
Advisor: Prof. Ioannis Tsamardinos
GPA: 9.50/10.00

Nov 2021 **Ptychion (BSc) in Mathematics**, Department of Mathematics, Aristotle University of Thessaloniki, Greece.

Areas: ▪ Pure Mathematics ▪ Applied Mathematics

Military Service

Military obligations fulfilled.

Professional Experience

Oct 2023 – Present **Research Engineer**, Foundation for Research & Technology Hellas, Heraklion, Greece.

Conducting research under public (*HEFRI*) and private funding (*Huawei Ireland Research Centre*). Core contributor in a ~€300K Huawei-funded industrial project. Developed SOTA algorithms for causal discovery, root cause analysis and counterfactual reasoning. Implemented and tested proprietary software, successfully applied in real-world scenarios. Exceeded project milestones and acceptance criteria. Collaborated with international teams, delivered biweekly reports and presentations.

Research Areas: ▪ Causality ▪ Machine learning ▪ Deep learning

Skills: ▪ Python ▪ PyTorch ▪ Pandas, NumPy, Scikit-learn ▪ git ▪ R&D ▪ Software engineering ▪ Algorithm design ▪ Technical writing ▪ Scripting

Aug – Oct 2017 **Data Analyst Intern**, Psychological Technologies Ltd, London, United Kingdom.

Successfully extracted, analyzed and presented key wellbeing indicators from real data, collected using the Experience Sampling Method (ESM) via a proprietary mobile app.

Skills: ▪ Data analysis ▪ Data storytelling ▪ R

Publications & Manuscripts

arXiv preprint 2025 **Temporal Causal-based Simulation for Realistic Time-series Generation**
Nikolaos Gkorgkolis, Nikolaos Kougioulis*, MingXue Wang, Bora Caglayan, Andrea Tonon, Dario Simionato & Ioannis Tsamardinos (arXiv 2506.02084).

* Authors contributed equally to this work.

MSc **Large Causal Models for Temporal Causal Discovery**
Dissertation Nikolaos Kougioulis.

Teaching Assistantships

- Fall 2022 **CS-100 Introduction to Computer Science**, *University of Crete*, Greece.
Assist. Prof. Polyvios Pratikakis
First year undergraduate course, Department of Computer Science
- Spring 2023,24,25 **CS-119 Linear Algebra**, *University of Crete*, Greece.
Prof. Ioannis Tsamardinos
First year undergraduate course, Department of Computer Science
- Fall 2023,24 **CS-487 Introduction to Artificial Intelligence**, *University of Crete*, Greece.
Prof. Ioannis Tsamardinos
Final year undergraduate Course, Department of Computer Science

Awards & Distinctions

- Jul 2019 **3rd Place Overall in Formula Student ATA 2019.**
Part of the arist.u.r.t.le team, represented Aristotle University of Thessaloniki in international competitions.

Skills

- Languages ▪ English (Proficient) ▪ French (Upper Intermediate) ▪ Greek (Native)
Prog. Python, JavaScript, C, MySQL, L^AT_EX
Tools git, vim, Linux, Powerpoint

Last Updated: November 28, 2025