

Nikolas Kougioulis



nkougioulis.com

Location: Thessaloniki, Greece

Open to relocation/ remote

Experience

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

Contributed to ~**300K€** private funding for industrial AI research. Developed methods for Causal AI:

- Built *foundation models* for *causal discovery* on time-series data
- Designed algorithms for *causal digital twin simulation*, *root cause analysis*, and *counter-factual decision optimization*
- Achieved *target KPIs* (Precision, Recall > 0.9) on data cases
- Delivered production-ready pipeline under recurring executive reviews
- Technical results contributed to supporting successful **2.5M€** EIC Transition award on Causal AI for Optimal Decision Making.

Areas: ■ Causal AI ■ Deep Learning ■ Machine Learning

Skills: ■ Python ■ PyTorch ■ Pandas ■ NumPy ■ Scikit-learn ■ Git ■ Software Engineering

Sep 2022 – Jun 2025 **Teaching Assistant**, *Department of Computer Science, University of Crete*, Greece.

- **CS-487 Introduction to Artificial Intelligence** (Fall 2023,24) - Prof. Ioannis Tsamardinos; 4th year course.
- **CS-119 Linear Algebra** (Spring 2023,24,25) - Prof. Ioannis Tsamardinos; 1st year course.
- **CS-100 Introduction to Computer Science** (Fall 2022) - Assist. Prof. Polyvios Pratikakis; 1st year course.

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

Education

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

Areas: ■ Causal AI ■ Machine Learning ■ Deep Learning

Nov 2021 **BSc in Mathematics**, *Department of Mathematics, Aristotle University of Thessaloniki*, Greece.
Areas: ■ Pure Mathematics ■ Applied Mathematics

Military Service

Military obligations fulfilled.

Publications & Manuscripts

- arXiv preprint 2026 **Large Causal Models for Temporal Causal Discovery**
Nikolaos Kougioulis, Nikolaos Gkorgkolis, MingXue Wang, Bora Caglayan, Dario Simionato, Andrea Tonon & Ioannis Tsamardinos (arXiv 2602.18662).
- 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).

Skills

Languages ■ English (Proficient) ■ French (Upper Intermediate) ■ Greek (Native)
Prog. Python (PyTorch, NumPy, Pandas, Scikit-learn), SQL, C
Tools git, vim, Linux, Powerpoint

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.

Last Updated: February 24, 2026

* Authors contributed equally to this work.