

# Nikolaos Kougioulis



[nkougioulis.com](https://nkougioulis.com)

Nationality: Greek

Location: Thessaloniki, Greece

## 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 Assistanships

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,  $\text{\LaTeX}$   
Tools git, vim, Linux, Powerpoint