Themistoklis Nikas

Ph.D. Student in Computer Science

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Education

Boston University   Boston, MA, USA

Ph.D. in Computer Science   *Sep 2023 – Present*

- Advisor: Prof. Aaron Mueller.
- Research in mechanistic interpretability and meta-cognition in LLMs; current work on linguistic ambiguity and (un)answerability; prior work in graph algorithms and algorithmic fairness.

University of Ioannina   Ioannina, Greece

B.Sc. & M.Sc. in Computer Science & Engineering (5-year joint degree; 300 ECTS)   *Mar 2017 – Mar 2022*

- Diploma Thesis: *Fairness in Link Analysis Algorithms.*

Professional and Research Experience

Teaching Fellow   Jan 2024 – Present

Boston University   *Boston, MA, USA*

- Course: CS330 - Introduction to Analysis of Algorithms (Spring 2024, Fall 2024, Spring 2025, Fall 2025).
- Led discussion sections, held office hours, and helped design assignments and exams.

Research Associate   Feb 2023 – Aug 2023

University of Ioannina & Pfizer CDI Collaboration   *Thessaloniki, Greece*

- Developed innovative solutions for detecting healthcare-related misinformation on social media.
- Leveraged machine learning and NLP methods for large-scale data analysis and classification.

Junior Researcher   May 2022 – Jan 2023

Unit of Medical Technology & Intelligent Information Systems (MedLab)   *Ioannina, Greece*

- Conducted research on probabilistic and ML techniques for synthetic omics generation and virtual population analyses.
- Investigated the relationship between cardiovascular diseases and depression using big-data classification.

Diploma Thesis Research   Apr 2021 – Mar 2022

University of Ioannina   *Ioannina, Greece*

- Analyzed how to achieve fairness in PageRank with minimal network modifications; performed theoretical and empirical evaluations of fairness-cost tradeoffs.

Teaching Assistant   Feb 2023 – Jun 2023

University of Ioannina   *Ioannina, Greece*

- Assisted in teaching Object-Oriented Programming; provided support through labs, grading, and student Q&A.

Publications

Disentangling Text and Math in Word Problems: Evidence for the Bidimensional Structure of Large Language Models' Reasoning

*Calais, P., Franco, G., Tang, Z., **Nikas, T.**, Meira Jr., W., Terzi, E., Crovella, M. (Findings of ACL), 2025*

Beyond Accuracy: Understanding the Performance of LLMs on Exams Designed for Humans

*Calais, P., Franco, G., **Nikas, T.**, Tang, Z., Crovella, M., Meira Jr., W., Terzi, E. (Preprint), 2025*

Giving Voice to the Minority: Fair Opinion Formation in Social Networks

***Nikas, T.**, Pitoura, E., Tsaparas, P. (Under review), 2025*

- Extension of diploma thesis; explores fairness and opinion dynamics in networks.

Skills, Languages & Volunteering

Programming: Python, R, C/C++, Java, SQL
ML/Tools: scikit-learn, Keras, PyTorch, Matlab, Git
Languages: English (fluent), Greek (native)
Volunteering (TEDxMaviliSquare): Oversaw speaker recruitment, content direction, and workshop organization.