

# Nikitas Theodoropoulos

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🌐 [nikitas-theo](https://nikitas-theo.github.io)

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## EDUCATION

### National Technical University of Athens (NTUA)

BSc & MSc in Electrical and Computer Engineering (5-year joint degree; 300 ECTS)

Sep 2015 - Nov 2024

Athens, Greece

- GPA: 8.83/10, Major: Computer Science
- Final thesis project: Leveraging Synthetic Story Data for Sample-Efficient Language Pre-training.

## PUBLICATIONS

1. **BabyBabelLM: A Multilingual Benchmark of Developmentally Plausible Training Data**, Jaap Jumulet, ..., Nikitas Theodoropoulos, ..., Leshem Choshen (26 authors, listed alphabetically). 2025. Under Review. [Arxiv](#) [🔗](#)
2. **BERTtime Stories: Investigating The Role of Synthetic Story Data in Language Pre-training**. Nikitas Theodoropoulos, Giorgos Filandrianos, Vassilis Lyberatos, Maria Lymperaïou, and Giorgos Stamou. *The 2nd BabyLM Challenge at CoNNL*. 2024. [ACL](#) [🔗](#)
3. **From {Solution Synthesis} to {Student Attempt} Synthesis for Block-Based Visual Programming Tasks**. Adish Singla and Nikitas Theodoropoulos. *Conference on Educational Data Mining (EDM)*. 2022. [Arxiv](#) [🔗](#)

## EXPERIENCE

### Independent Researcher Collaboration on BabyBabelLM

Mar 2025 - Oct 2025

*BabyBabelLM Project* [🔗](#)

Remote participation

- Collaborated with a diverse, international team of researchers. Created a multilingual collection of developmentally plausible data for 45 languages. Collected data for 3 languages, and developed the project's data processing pipeline.

### Undergraduate Researcher at AILS of NTUA

Mar 2024 - Nov 2024

*Artificial Intelligence and Learning Systems Lab (AILS) at NTUA* [🔗](#)

Athens, Greece

- Investigated efficient and cognitively-inspired language modeling with human-like data constraints of at most 100 million words. Advised by Prof. [Giorgos Stamou](#). Work published at the 2nd BabyLM Challenge at CoNNL, 2024.

### Research Engineer at the department of Informatics at NKUA

Sep 2023 - Apr 2024

*Department of Informatics at the National Kapodistrian University of Athens (NKUA)* [🔗](#)

Athens, Greece

- Investigated multi-agent reinforcement learning methods for minimizing carbon emissions and energy usage in computer networks. Participated in writing industry and EU-funded research proposals.

### Visiting Scholar - Fellowship at MPI-SWS

Feb 2021 - Jul 2022

*Machine Teaching group at MPI-SWS* [🔗](#)

Saarbrücken, Germany

- Research topics: AI for education, program synthesis, reinforcement learning. Advised by Prof. [Adish Singla](#).
- Designed a benchmark for predicting student behavior at block-based visual programming. Problem: Given a student's attempt at a known reference task, synthesize their attempt at an unseen target task. Work published at EDM, 2022.

### Undergraduate Researcher at SLP of NTUA

Feb 2020 - Feb 2021

*Speech and Language Processing group (SLP) at NTUA* [🔗](#)

Athens, Greece

- Researched methods of using brain-derived (fMRI) word representations to improve NLP tasks. Worked on unsupervised discovery of a bilingual dictionary using brain data. Advised by Prof. [Alexandros Potamianos](#).

### CMMRS Pre-doctoral Research School

Aug 3-9, 2020

*The Cornell, Maryland, Max Planck Pre-doctoral Research School (CMMRS)* [🔗](#)

Saarbrücken, Germany (virtually)

- Selected for a competitive one-week summer school. Learned about state-of-the-art CS research and graduate school.

### Teaching Experience

Nov 2017 - Mar 2019

*School of Electrical & Computer Engineering (ECE) at NTUA* [🔗](#)

Athens, Greece

- TA for 1st year courses *Intro to Programming* (Fall'16, Fall'17) and *Programming Techniques* (Spring'17).
- Gave courses on algorithms to prepare the national team for the Junior Balkan Olympiad of Informatics.
- Private tutoring for high school physics, and university-level programming for non-CS majors.

## ACHIEVEMENTS

IEEEExtreme 14.0 coding contest, 2nd place in Greece, top 2% worldwide	2021
IEEEExtreme 13.0 coding contest, 2nd place in Greece, top 4% worldwide	2020
Award by EFG Eurobank, distinction in the Greek Nationwide University Entrance Examination	2015

## SKILLS

**Technical skills:** Python, PyTorch, Scikit-Learn, NumPy, Pandas, Matplotlib, C, C++, Rust,  $\LaTeX$ , Unix/Linux, Bash, Haskell, SQL, MatLab, Assembly, basic server/system administrator skills.

**Languages:** Greek (native), English (fluent, C2), French (conversational), German (basic).