Nikolaos Tsilivis
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Education

National Technical University of Athens — Athens, Greece
Diploma in Electrical and Computer Engineering (5-year degree, BSc & MSc equivalent) — Oct. 2014 – Apr. 2021
Major: Computer Science, Signals, Control Theory — GPA: 8.88/10 (top 7%)
Minor: Mathematics
Thesis: Sparse Representations in Tropical Mathematics, advisor: Prof. Petros Maragos

KTH Royal Institute of Technology — Stockholm, Sweden
Exchange studies under the fellowship of EU, Erasmus — Jan. 2018 – May 2018

High School of Ionios Sxoli — Filothei, Athens, Greece
Excellence in 2014 Nationwide University Entrance Examination — 19.375/20.000 units (top 1%)

Experience

Research Assistant at CVSP lab, NTUA — Dec. 2019 – Present
Advanced the theory of sparsity in tropical mathematics and investigated ties with applications

Private Tutor — Nov. 2017 – Sep. 2020
Mathematics and Computer science lessons to high school and university students

Research Assistant & Junior Developer at FSU, NTUA — Dec. 2015 – Apr. 2016
Developed a web observatory of Twitter analytics for movie recommendations

Research Interests

Deep Learning, Theoretical Machine Learning, Optimization, Statistical Learning Theory, Nonlinear Algebras, Lattices, Theory of Computation

Related Graduate Coursework

Computer Vision, Neural Networks, Speech and Natural Language Processing, Digital Signal Processing, Stochastic Processes, Measure Theory, Lambda Calculus, Algorithms & Complexity, Computability & Complexity, Advanced Algorithms, Information Theory, Neuro-Fuzzy Control and Applications, Queuing Theory (KTH), Pattern Recognition & Machine Learning (KTH)

Publications

1. Tsilivis, N., Tsiamis, A., and Maragos, P. Sparse Approximate Solutions to Max-Plus Equations, to appear. In *IAPR International Conference on Discrete Geometry and Mathematical Morphology (DGMM) 2021* (2021), **paper**

2. Tsilivis, N., Tsiamis, A., and Maragos, P. Sparsity in Max-plus Algebra and Applications in Multivariate Convex Regression, to appear. In *2021 IEEE International Conference on Acoustics, Speech and Signal Processing* (2021), **paper**

Presentations

Courcelle's theorem | *Semester-long project on a famous algorithmic meta-theorem*, **slides** — Feb. 2020
Automatic Data Augmentation | *A survey on recent, automatic, data augmentation techniques*, **slides** — Oct. 2019
Godel's System T | *Part of weekly-lectures on Lambda Calculus course* — Mar. 2019

Programming Skills

Languages: Python, C/C++, Java, ML, Prolog
Other: pytorch, matlab, latex

Languages

Greek (native), English (proficient)