Emmanouil Theodosis

CONTACT INFORMATION

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github.com/manosth
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RESEARCH INTERESTS

Compressive sensing and representation theory, algebraic geometry, nonlinear optimization, tropical algebra, theoretical machine learning, probabilistic graphical models

EDUCATION

Harvard University Sep 2019 - May 2024
PhD in Computer Science
GPA: 3.835/4.00—*Advisor*: Demba Ba

National Technical University of Athens Oct 2012 - Oct 2018
BSc & MSc in Electrical and Computer Engineering
GPA: 8.56/10—*Advisor*: Petros Maragos

RESEARCH EXPERIENCE

Harvard University Sep 2019 - Present
Computation, Representations, and Inference in Signal Processing Lab (CRISP)
Research Assistant

National Technical University of Athens Feb 2017 - Jun 2019
Computer Vision, Speech Communication, and Signal Processing Lab (CVSP)
Research Assistant

PUBLICATIONS

Conference papers

[1] MARAGOS, P. AND **THEODOSIS, E.** "Multivariate tropical regression and piecewise-linear surface fitting". In *International Conference on Acoustics, Speech, and Signal Processing* (2020)
[paper]

[2] RETSINAS, G., FILNTISIS, P., EFTHYMIOU, N., **THEODOSIS, E.**, ZLATINTSI, A., AND MARAGOS, P. "Person identification using deep convolutional neural networks on short-term signals from wearable sensors". In *International Conference on Acoustics, Speech, and Signal Processing* (2020)
[paper]

[3] **THEODOSIS, E.** AND MARAGOS, P. "Tropical modeling of weighted transducer algorithms on graphs". In *International Conference on Acoustics, Speech, and Signal Processing* (2019)
[paper] [poster]

[4] **THEODOSIS, E.** AND MARAGOS, P. "Analysis of the Viterbi algorithm using tropical algebra and geometry". In *International Workshop on Signal Processing Advances in Wireless Communications* (2018)
[paper] [poster]

Book chapters

[5] MARAGOS, P. AND **THEODOSIS, E.** "Tropical Geometry and Piecewise-Linear Approximation of Curves and Surfaces on Weighted Lattices". In *Shape Analysis: Euclidean, Discrete and Algebraic Geometric Methods*, edited by M. Breuss, A. Bruckstein, C. Kiselman, and P. Maragos, Springer, to appear.
[paper]

Preprints

[6] **Theodosis, E.** and Maragos, P. "A Robust Adaptive Pruning Algorithm Based on Tropical Geometry". In *arXiv* (2019)
[paper]

Honors and Awards

Harvard PhD Fellowship Sep 2019
Awarded to first year students.

IEEE Xtreme Oct 2017
Ranked 161st amongst over 4000 teams (top 5%).

Codechef SnackDown Jul 2017
Ranked 615th amongst over 17000 teams (top 5%).

Google CodeJam Apr 2017
Ranked in the top 3000 amongst over 65000 people (top 5%).

Google HashCode Feb 2017
Ranked 170th amongst over 3500 teams (top 5%).

"**The Great Moment of Education**" **Eurobank EFG Scholarship** Oct 2012
Achieved the highest score at the national exams amongst students of Nea Genia Ziridis.

Projects

SIP VoIP Application Fall 2016
A VoIP application based on the Session Initiation Protocol. Developed jointly with 3 other students for a course on software engineering.
[code]

Prescriptions R-X Application Fall 2016
A database in MariaDB along with a user interface in HTML/CSS for a fictitious company. Developed for a course on database management systems.
[code]

Edsger Compiler Summer 2016
A compiler for a fictitious C-like language called Edsger. Developed jointly with one other student for a course on compilers.
[code]

Greeklish to Greek Translator Fall 2015
A translator and spellchecker application that converts text from greeklish (Greek using Latin characters) to Greek. Developed for a course on natural language processing.
[code]

Professional Service

Invited Reviewer: EUSIPCO 2020

Programming Skills

Languages: Python, C, MATLAB, HTML/CSS
Other: LaTeX, Unix, Git

Languages

Greek (*Native*), English (*Fluent*), French (*Basic*)

Personal Interests

Cinema, Soccer, Hiking