Emmanouil Theodosis

CONTACT INFORMATION

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github.com/manosth
manosth.github.io

RESEARCH INTERESTS

Compressive sensing, sparsity and sparse representations, theoretical machine learning, probability, tropical algebra and geometry, algebraic geometry, graphical models

EDUCATION

Harvard University Sep 2019 - May 2024
PhD in Computer Science

- GPA: 3.835/4.00
- Related Courses: Probability I, Sparsity in Signal Processing, Discrete-Time Signal Processing, Big Data Systems
- Advisor: Prof. Demba Ba

National Technical University of Athens Oct 2012 - Oct 2018
BSc & MSc in Electrical and Computer Engineering (5-year joint degree; 300 ECTS)

- GPA: 8.56/10 (top 10%)
- Major: Computer Science
- Related Courses: Pattern Recognition, Natural Language Processing, Digital Signal Processing, Computer Vision, Algorithms and Complexity, Compilers
- Thesis: "*Tropical Analysis of Algorithms on Graphs*"
  Advisor: Prof. 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

[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]

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]

Online Learning

Coursera, *22 courses* Feb 2015 - Dec 2018
[1] Machine Learning Specialization, *University of Washington* (4 courses)
[2] Fundamentals of Computing Specialization, *Rice University* (7 courses)
[3] Data Science at Scale Specialization, *University of Washington* (2 courses)
[4] Machine Learning, *Stanford University*
[5] Neural Networks and Deep Learning, *deeplearning.ai*
[6] Intro to RecSys: Non-Personalized and Content-Based, *University of Minnesota*
[7] Bayesian Statistics: From Concept to Data Analysis, *UC Santa Cruz*
[complete list].

Programming Skills

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

Languages

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

Personal Interests

Cinema, Soccer, Hiking