

Sofia Maria Nikolakaki

Education

- September 2015 – Present **Ph.D.**, *Computer Science*, Boston University, Boston, MA.
Research Topics: Prize-Collecting Subgraphs and Team Formation
Advisor: Prof. Evimaria Terzi
- March 2014 – July 2015 **MSc.**, *Electronic & Computer Engineering*, Technical University of Crete, Chania, Greece.
Research Topic: Real-Time Stream Data Processing with FPGA-Based Supercomputer
Advisor: Prof. Apostolos Dollas
GPA: 10.0/10.0
- October 2008 – February 2014 **Diploma (5-year program)**, *Electronic & Computer Engineering*, Technical University of Crete, Chania, Greece.
Diploma Thesis: Algorithm Modeling for Hardware Implementation of a Blokus Duo Player
Advisor: Prof. Apostolos Dollas
GPA: 8.68/10.0 (top 2% of ECE 2008 class and **3rd** in graduation year 2013–2014)

Research Interests

- Applied Data Mining & Machine Learning
- Health Informatics, Natural Language Processing, Social Networks, Team Formation

Publications

- S. M. Nikolakaki**, C. Mavroforakis, A. Ene and E. Terzi *Mining tours and paths in activity networks*. to appear in WWW 2018 (acceptance rate of about 14.8%)
- S. M. Nikolakaki**, K. Iordanou, P. Malakonakis and A. Dollas *Multi-FPGA Architectures for Streaming Computations of Information Transfer*. [under submission]
- S. M. Nikolakaki**, K. Iordanou, P. Malakonakis and A. Dollas *Computing Information Transfer with FPGA-based Supercomputers*. accepted as extended abstract at ACM SIGFPGA 2018
- S. M. Nikolakaki**, P. Malakonakis, E. Sotiriades and A. Dollas *Towards Accelerating the LIBSVM Software on the Reconfigurable Maxeler System*. HiStencils 2016, 3rd International Workshop on High-Performance Stencil Computations

Academic & Research Experience

- Fall 2017 **Teaching Assistant**, in *Data Science in Python*, Prof. Mark Crovella, Boston University.
- Summer-II 2017 **Teaching Assistant**, in *Introduction to Computer Science*, Boston University.
- Summer-I 2017 **Teaching Assistant**, in *Data Mining*, Prof. Evimaria Terzi, Boston University.
- May 2016 – April 2017 **Research Assistant**, *Working on Graph Mining for Urban Informatics*, Boston University.
- Spring 2016 **Teaching Assistant**, in *Combinatoric Structures*, Prof. Olga Lepsky, Boston University.
- March 2014 – July 2015 **Research Assistant**, *Research oriented towards the efficient implementation of Machine Learning algorithms on an FPGA-based supercomputer, for the project [QualiMaster](#)*.
- Spring 2015 **Teaching Assistant**, in *Advanced Logic Design*, Prof. Apostolos Dollas, Technical University of Crete.
- Fall 2014 **Teaching Assistant**, in *Digital Computers*, Prof. Dionisios Pnevmatikatos, Technical University of Crete.
- Spring 2014 **Teaching Assistant**, in *Advanced Logic Design*, Prof. Apostolos Dollas, Technical University of Crete.

Summer Internships

- May–Aug. 2018 **Electronic Arts**, *Redwood City, CA*, Machine Learning Scientist.
- June – August 2011 **EADS 3 Sigma enterprise**, *that specializes in design, manufacture and export of un-manned aircraft.*

Awards & Distinctions

- June 2017 **Eleni Gatzoyiannis Scholarship.**
- August 2016 **Student Travel Award**, *ACM SIGKDD.*
- May 2016 **Outstanding Academic Performance Scholarship**, *Gerondelis Foundation, (\$5,000).*
- September 2015 **Dean 's Fellowship**, *Boston University.*
- November 2014 **Award of Academic Excellence**, *for graduating in 2014 with the 3rd highest GPA from the School of Electronic & Computer Engineering of the Technical University of Crete, Award by LIMMAT STIFTUNG organization, (Grant 6,000 Euro).*
- 2012, 2013 **Undergraduate Excellence Award**, *Office of Sponsored Research, Technical University of Crete, awarded to the top 1% of class.*
- 2009, 2010, 2011 **Undergraduate Fellowship Award**, *Office of Sponsored Research, Technical University of Crete, awarded to the top 10% of class.*

Graduate Coursework

Boston University

- Data Mining, Prof. Evimaria Terzi
- Graduate Computer Networks, Prof. Abraham Matta
- Formal Methods for High-Assurance Computing System Design and Analysis, Prof. Assaf Kfoury
- Tools & Techniques for Data Mining and Applications, Prof. George Kollios
- Statistical Analysis of Network Data, Prof. Eric Kolaczyk
- Graduate Algorithms, Prof. Steve Homer

Technical University of Crete

- Processing and Analyzing Big Data (audit), Prof. Minos Garofalakis
- Computational Geometry, Prof. Vasilis Samoladas
- Reconfigurable Computing Systems, Prof. Apostolos Dollas
- Machine Learning, Assoc. Prof. Michail G. Lagoudakis

Notable Undergraduate Coursework

- Special Topics on Database Systems (9.5/10) (graduate course)
- Algorithms & Complexity (9.5/10)
- Design, Development and Management of Web Services (9.5/10)*
- Multimedia Data Management (10/10)*
- Data Management and Processing in Sensor Networks (10/10)*
- Parallel and Distributed Computer System Architecture (9.5/10)*
- Operating Systems (10/10)
- Human Computer Interaction (10/10)*
- Machine Vision (10/10)

* Cross-listed graduate course: attended as an undergraduate student but fulfilled graduate requirements.

Technical Skills

- **Programming/Scripting Languages:** Python, Matlab, Java, C, VHDL, MySQL

Languages

- English: Certificate of Proficiency in English, University of Michigan, TOEFL
- French: Paris - Sorbonne B2
- Greek: Mothertongue