Thomas Papastergiou

251 10th Street NW
Atlanta, GA 30318, USA
(+1) 404-936-1960 ● tpapastergiou@gatech.edu

EDUCATION

Georgia Institute of Technology, Atlanta, GA, USA   **Aug 2016 - Present**
PhD Computer Science, expected spring 2021
  Research Interests: *machine learning, network science*
  Adviser: *Constantine Dovrolis*

National Technical University of Athens (NTUA), Athens, Greece   **Jul 2016**
Diploma of Electrical and Computer Engineering
Master equivalent (5 years duration and 300 ECTS credits), Grade 9.1/10
  Diploma Thesis: Methodology for optimizaton of applications that utilize radix tree data structures in embedded systems
  Supervisor: Associate Professor D. Soudris, Division of Computer Science

RESEARCH EXPERIENCE

Research Assistant for EU Project   **Jun 2015 - Jul 2016**
Department of Computer Science, National Technical University of Athens
- Conducted research for the optimization of Burrows-Wheeler Aligner (BWA) algorithm for the mapping of short nucleotide sequences to a reference genome.
- Statistical analysis of the pattern of memory accesses on various data structures in an attempt to reduce cache misses by prefetching data. Exploration of machine learning techniques and neural networks.
- Smart allocation of data structures depending on access pattern and frequency in specialized scratchpad memory banks in order to reduce the energy footprint of the program.

PUBLICATIONS / PATENTS

Filed a **patent** (with IMEC) based on the results of the aforementioned project.   **Aug 2016**

Thomas Papastergiou, Lazaros Papadopoulos and Dimitrios Soudris, **"Platform-aware Dynamic Data Type Refinement Methodology for Radix Tree Data Structures"**, in *SAMOS XV conference*, Greece, July 20-23, 2015.

COMPETITIONS

IEEEXtreme 24h Programming Competition 8.0   **Oct 2014**
1st place among participants from my university, top 5% worldwide

IEEEXtreme 24h Programming Competition 7.0   **Oct 2013**
1st place among participants from my university, top 15% worldwide

AWARDS

Our Youth get to Know Europe program   **Nov 2008**
Selected to participate in an educational trip to Belgium thanks to excellent high school performance with other students. The program was implemented under the authority of the General Secretariat for Youth, and aims at promoting youth mobility and also support learning and personality development through a

process that enables young people to become familiar with European culture and modern European reality.

SKILLS AND PROJECTS

Programming Languages: C, C++, Java, Python, Haskell, Prolog, Javascript, PHP, Pascal, Erlang, SML/NJ and various assembly languages (8085, 8086, AVR, ARMS, MIPS). Experienced with using SQL, HTML, XML and parallel programming (Cilk, MPI, OPENMP), script writing (bash/shell) as well as programming for GPUs (CUDA).

Software: Matlab, Eclipse, WAMP, AVR studio, PSPICE, NI Multisim, MS Office/Visio/Excel and more.

University Projects: a complete compiler for a C-like language as part of the Compilers course, expansion of a project using the SIP protocol to include instant messaging as part of the Software Engineering course. Various projects in Matlab for machine learning, computer vision, pattern recognition.