

Georgios Vavouliotis | Curriculum Vitae

Travessera de Les Corts 37, 08028 – Barcelona – Spain

✉ gvavou5@gmail.com • [in georgios-vavouliotis](https://www.linkedin.com/in/georgios-vavouliotis) • [gvavou5](https://github.com/gvavou5)

Profile

I earned my diploma on Electrical and Computer Engineering Department of National Technical University of Athens (NTUA). During my studies, I completed numerous projects that gave me a solid background in Computer Science and Software Engineering. Currently, I am a 2nd year Ph.D. student in Universitat Politècnica de Catalunya (UPC) and Barcelona Supercomputing Center (BSC-CNS). My supervisors are Dr. Marc Casas Guix from BSC-CNS and Dr. Lluc Alvarez from UPC. Moreover, I collaborate with Prof. Daniel A. Jiménez from Texas A&M University. Finally, my research aims at building hardware predictors that inherently use artificial intelligence algorithms.

Areas of Interest

- Computer Architecture
- Artificial Intelligence
- System Software
- Operating Systems

Education

- **Universitat Politècnica de Catalunya (UPC)** **Barcelona**
Doctor of Philosophy (Ph.D.) *September 2018–now*
Leveraging Artificial Intelligence Algorithms for Hardware Prediction

- **National Technical University of Athens (NTUA)** **Athens**
Diploma on Electrical & Computer Engineering, 300 ECTS, GPA: 8.9/10 *2012–March 2018*

Academic Directions.....

- Computer Systems & Software
- Computer Networks and Networks Security
- Signal Processing, Automatic Control and Robotics

Diploma Thesis.....

Performance Analysis of TLB Prefetching Mechanisms, GPA: 10/10

- **General Lyceum, Chalkida, Greece** **Chalkida**
Apolytirion, Top 0.1% in National Qualification Exams, GPA: 19.5/20 *2009–2012*

Research Experience

- **Barcelona Supercomputing Center (BSC-CNS)** **Barcelona**
Research Student *September 2018–now*
Projects involved: SOW 5.3 - Intel and BSC-CNS Collaboration, High Performance Computing VII

- **National Technical University of Athens (NTUA)** **Athens**
Research Student on Computer Systems Laboratory (CSLab) *February 2018–July 2018*

Participation in Projects

- **SOW 5.3 - Intel and BSC-CNS Collaboration** **Barcelona**
Barcelona Supercomputing Center (BSC-CNS) *September 2018–now*
- **High Performance Computing VII** **Barcelona**
Barcelona Supercomputing Center (BSC-CNS) *September 2018–now*

Publications

- [1] **Georgios Vavouliotis**, Goumas Georgios, "[Performance Analysis of TLB Prefetching Mechanisms](#)". Book of my diploma thesis.
- [2] **Georgios Vavouliotis**, Lluc Alvarez, Daniel A. Jimenez, Marc Casas Guix, [Cost-Effective Instruction TLB Prefetching](#). Second Young Architect Workshop (YArch 2020). In conjunction with The 25th ACM International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS 2020), Lausanne.
- [3] **Georgios Vavouliotis**, Lluc Alvarez, Vasileios Karakostas, Konstantinos Nikas, Nectarios Koziris, Daniel A. Jimenez, Marc Casas Guix, ***Exploiting Page Table Locality for Agile TLB Prefetching***. Submitted to 53th International Symposium on Microarchitecture (MICRO) **[under review]**.

Seminars and Training Courses

- **Summer Schools**
*Participation in accredited Summer Schools (**certification provided**)*
 - **HPC Architectures for Artificial Intelligence and Dedicated Applications**
*Provided by **ACM-Europe**, 17 - 24 July 2019*
- **Seminars**
*Participation in accredited seminars (**certification provided**)*
 - **Introduction to Heterogenous Memory Usage**
*Provided by **PACT BSC-CNS**, 26 February 2019*
- **Online Courses (MOOCs)**
*Courses offered by accredited universities and training programs (**certification provided**)*
 - **Machine Learning**
*Provided by **Stanford University** (Prof. Andrew Ng), May 2018 - July 2018, **GPA: 10/10***
 - Supervised Learning (Regression Models, SVMs, NN)
 - Unsupervised Learning (Clustering, Dimensionality Reduction)
 - **Advanced Programming with Python**
*Provided by **Mathesis Online Platform**, March 2018 - April 2018, **GPA: 10/10***
 - Object Oriented Programming
 - Data Storage (sqlite3, pickle, JSON)
 - Graphic Interface Programming and Game Development

Teaching Experience

- **Private Tutor** **Athens**
2013–2018
 - *During my Diploma I was giving private lectures to:*
 - **Undergraduate students of Computer Science Department**
C programming, Computer Architecture, Operating Systems, Automatic Control
 - **High school students**
Mathematics, Physics
- **Lab Assistant at National Technical University of Athens (NTUA)** **Athens**
2013-2017
 - *C programming, Operating Systems*

Technical and Personal skills

- **Programming Languages:**
 - Proficient: C, Python, Matlab-Simulink
 - Basic knowledge: C++, Octave, Java, R, Prolog, SML/NJ, Assembly (8085, 8086, AVR)
- **Software Skills:**
 - Proficient: Unix Bash, L^AT_EX, Git, MS Office (Word, Excel, PowerPoint)
 - Basic knowledge: HTML, CSS, PHP, Javascript, Cacti, TCL - AWK - Wireshark
- **Simulators:**
 - Proficient: ChampSim
 - Basic knowledge: Gem5
- **Operating Systems:**
 - Proficient: Linux, Mac OS, Windows
- **General Business Skills:**
 - Ability to work with a team
 - Very good presentation skills
 - Able to write well organized and structured reports

Honors and Awards

- **2019 FPI Doctoral Fellowship** **Barcelona**
2019-2022
 - *Funded by Spanish Government (MINECO)*
- **Mathematics Award - National Technical University of Athens (NTUA)** **Athens**
2014
 - *Excellent marks in all mathematical courses during the first two (2) years.*
- **"The Great Moment of Education" Eurobank EFG Scholarship** **Chalkida**
2012
 - *Highest rank in National Qualifications Exams in my school - 1000 Euros*

Affiliations

- Affiliated PhD student in HiPEAC (European Network of Excellence on High Performance and Embedded Architecture and Compilation)
- IEEE member

Languages

- **Greek** (Native)
- **Italian** (Novice)
- **English** (B2 (FCE, KPG))
- **Spanish** (Beginner)

Personal Interests and extra-curricular activity

- Challenges
- Writing
- Travelling
- Cooking
- Basketball
- Cinema

References

References available upon request.