

CURRICULUM VITAE

PERSONAL INFORMATION

- Name - **BROKALAKIS ANDREAS**
Address - **PLATONOS 4D, CHANIA, CRETE, GREECE**
Telephone Number - **+30 6978113289 (cellphone)**
E-mail - **andreas.brokalakis@gmail.com**
- Citizenship - Greek
Place and Date of Birth - Chania, Crete, Greece / November 11th, 1980

STUDIES

- Current - School of Electronic and Computer Engineering, Technical University of Crete
PhD Student
- 2004 - 2007 - Computer Engineering and Informatics Department, School of Engineering – University of Patras
Postgraduate Course: “Integrated Hardware / Software Systems”
M.Sc. Degree: 9.21 / 10 (First Honours – ranked 1st)
- 1998 - 2004 - Computer Engineering and Informatics Department, School of Engineering – University of Patras
Diploma Degree: 8.50 / 10 (First Honours)
(Note: engineering diplomas in Greece are a result of 5-year academic studies including a research thesis and are certified as equal to Master’s degrees)
- 1995 - 1998 - 3rd Lyceum, Chania, Crete, Greece
Final GPA : 19.2 / 20

FOREIGN LANGUAGES

- English - Proficiency in English, University of Cambridge
French - Certificat de Langue Francaise (DELF 1 : Unite A1, A2, A3, A4) , DELF 2 : Unite A5, A6

DISTINCTIONS – SCHOLARSHIPS

- Scholarship from EPEAEK II (National Academic Grant) for my postgraduate studies
- 3rd Prize at the Web Design Competitions – Computer Engineering and Informatics Dept. 2003
- Member of the Parliament of Youth (2nd Summit) after distinction (ranked 1st) in the competition organized by the Hellenic Parliament
- Participated at the Euroscola program of the European Parliament after distinction at the relevant competition
- Distinctions at the competitions of the Hellenic Mathematic Society

PUBLICATIONS

- 30 A. Brokalakis, I. Mavroidis, K. Georgopoulos, P. Malakonakis, K. Harteros, D. Andronikou, Y. Galanomatis, C. Savvakos, Gr. Chrysos, S. Ioannidis, I. Papaefstathiou, “REBECCA: Reconfigurable Heterogeneous Highly Parallel Processing Platform for safe and secure AI”; 2024 Euromicro Digital System Design Conference (DSD 2024), August 2024.
- 29 C. Diktopoulos, K. Georgopoulos, A. Brokalakis, G. Christou, G. Chrysos, I. Morianos, S. Ioannidis, “Assessing the Effectiveness of Active Fences Against SCAs for Multi-Tenant FPGAs”, International Conference on Field Programmable Logic and Applications (FPL 2022), August 2022.
- 28 D. Theodoropoulos, A. Brokalakis, N. Alachiotis, D. Pnevmatikatos, “EDRA: A Hardware-assisted Decoupled Access/Execute Framework on the Digital Market”, 2021 International Conference on Embedded Computer Systems: Architectures, Modeling and Simulation (SAMOS XXI), July 2021
- 27 N. Alachiotis, A. Brokalakis, V. Amourgianos, S. Ioannidis, P. Malakonakis and T. Bokalidis, “Accelerating Phylogenetics using FPGAs in the Cloud”, IEEE Micro, July/August 2021, Vol. 41, Issue 4.
- 26 P. Malakonakis, A. Brokalakis, N. Alachiotis, E. Sotiriades, A. Dollas, “Exploring Modern FPGA Platforms for Faster Phylogeny Reconstruction with RAXML”, 20th IEEE International Conference

on Bioinformatics and Bioengineering (BIBE), Virtual Conference, USA, October 2020.

- 25 N. Tampouratzis, I. Papaefstathiou, A. Nikitakis, A. Brokalakis, St. Andrianakis, A. Dollas, M. Marcon, E. Plebani, "A Novel, Highly Integrated Simulator for Parallel and Distributed Systems", ACM Transactions on Architecture and Code Optimization (ACM TACO), Vol. 17, No. 1, Article 2, March 2020.
- 24 P. Toupas, A. Brokalakis, Y. Papaefstathiou, "Accelerating Physics Engine Components with Embedded FPGAs", 29th Conference on Field-Programmable Logic and Applications (FPL 2019), Barcelona, Spain, September 2019.
- 23 A. Brokalakis, D.P. Pau, M. Marcon, M. Paracchini, E. Plebani, Y. Papaefstathiou, A. Nikitakis, N. Tampouratzis, St. Andrianakis, R. G. Prajith, I. Sourdis, M. C. Palacios, M. A. Anton and A. Szasz, "COSSIM: An Open-Source Integrated Solution to Address the Simulator Gap for Systems of Systems", Euromicro Conference on Digital System Design (DSD) 2018, Prague, Czech Republic, August 2018.
- 22 C. B. Ciobanu, G. Stramondo, A. L. Varbanescu, A. Brokalakis, A. Nikitakis, L. Di Tucci, M. Rabozzi, L. Stornaiuolo, M. Santambrogio, Gr. Chrysos, Ch. Vatsolakis, G. Charitopoulos, D. Pnevmatikatos, "EXTRA: An Open Platform for Reconfigurable Architectures", International Conference on Embedded Computer Systems: Architectures, Modeling and Simulation (SAMOS 2018), Samos island, Greece, July 2018.
- 21 A. Brokalakis, A. Nikitakis, I. Papaefstathiou, N. Tampouratzis, St. Andrianakis, A. Dollas, M. Paracchini, M. Marcon, D.P. Pau, E. Plebani, "An Open-Source, Extendable, Highly-Accurate and Security-Aware Simulator for Cloud Applications", 21st Conference on Innovation in Clouds, Internet and Networks (ICIN 2018), Paris, France, February 2018.
- 20 A. Brokalakis, I. Chondroulis, I. Papaefstathiou, "Extending the Forward Error Correction Paradigm for Multi-Hop Wireless Sensor Networks", 9th International Conference on New Technologies, Mobility & Security (NTMS'2018), Paris, France, February 2018.
- 19 M. Rabozzi, R. Brondolin, G. Natale, E. Del Sozzo, M. Huebner, A. Brokalakis, C. Ciobanu, D. Stroobandt, M. D. Santambrogio, "A CAD Open Platform for High Performance Reconfigurable Systems in the EXTRA Project", IEEE Computer Society Annual Symposium on VLSI 2017 (ISVLSI2017), Bochum, Germany, July 2017.
- 18 N. Tampouratzis, A. Nikitakis, A. Brokalakis, St. Andrianakis, I. Papaefstathiou, A. Dollas, "An Open-Source Extendable, Highly-Accurate and Security Aware CPS Simulator", International Conference on Distributed Computing in Sensor Systems 2017 (DCOSS2017), Ottawa, Canada, June 2017.
- 17 D. Stroobandt, C. B. Ciobanu, M. D. Santambrogio, G. Figueiredo, A. Brokalakis, D. Pnevmatikatos, M. Huebner, T. Becker, A. J. W. Thom, "An open reconfigurable research platform as stepping stone to exascale high-performance computing", Design, Automation & Test in Europe 2017 (DATE 2017), Lausanne, Switzerland, March 2017.
- 16 D. Stroobandt, A. L. Varbanescu, C. B. Ciobanu, M. Al Kadik, A. Brokalakis, G. Charitopoulos, T. Todman, X. Niu, D. Pnevmatikatos, A. Kulkarni, E. Vansteenkiste, W. Luk, M. D. Santambrogio, D. Sciuto, M. Huebner, T. Becker, G. Gaydadjiev, A. Nikitakis, A. J. W. Thom, "EXTRA: Towards the Exploitation of eXascale Technology for Reconfigurable Architectures", 11th International Symposium on Reconfigurable Communication-centric Systems-on-Chip (ReCoSoC 2016), Tallin, June 2016.
- 15 A. Kulkarni, E. Vansteenkiste, D. Stroobandt, A. Brokalakis, A. Nikitakis, "A fully parameterized Virtual Coarse Grained Reconfigurable Array for High Performance Computing Applications", 23rd Reconfigurable Architectures Workshop (RAW 2016), 2016 IEEE International Parallel and Distributed Processing Symposium Workshops, Chicago, May 2016.
- 14 C. B. Ciobanu, A. L. Varbanescu, D. Pnevmatikatos, G. Charitopoulos, X. Niu, W. Luk, M. D. Santambrogio, D. Sciuto, M. Al Kadi, M. Huebner, T. Becker, G. Gaydadjiev, A. Brokalakis, A. Nikitakis, A. J. W. Thom, E. Vansteenkiste, and D. Stroobandt, "EXTRA: Towards an Efficient Open Platform for Reconfigurable High Performance Computing", 18th IEEE International Conference on Computational Science and Engineering (CSE-2015), Porto, October 2015
- 13 D. Pnevmatikatos, K. Papadimitriou, T. Becker, P. Böhm, A. Brokalakis, K. Bruneel, C. Ciobanu, T. Davidson, G. Gaydadjiev, K. Heyse, W. Luk, X. Niu, I. Papaefstathiou, D. Pau, O. Pell, C. Pilato, M. D. Santambrogio, D. Sciuto, D. Stroobandt, T. Todman, E. Vansteenkiste, "FASTER: Facilitating Analysis and Synthesis Technologies for Effective Reconfiguration", Microprocessors and Microsystems: Embedded Hardware Design (MICPRO) Journal, Available online 6 November 2014, ISSN 0141-9331, <http://dx.doi.org/10.1016/j.micpro.2014.09.006>.
- 12 F. Spada, A. Scolari, G.C. Durelli, R. Cattaneo, M.D. Santambrogio, D. Sciuto, D.N. Pnevmatikatos, G.N. Gaydadjiev, O. Pell, A. Brokalakis, W. Luk, D. Stroobandt, D. Pau, "FPGA-Based Design Using the FASTER Toolchain: The Case of STM Spear Development Board", 2014 IEEE International Symposium on Parallel and Distributed Processing with Applications (ISPA), Milan, Italy, August 2014
- 11 D. Pnevmatikatos, T. Becker, A. Brokalakis, G. Gaydadjiev, W. Luk, K. Papadimitriou, I.

- Papaefstathiou, O. Pell, C. Pilato, D. Pau, M. D. Santambrogio, D. Sciuto, D. Stroobandt, "Effective Reconfigurable Design: the FASTER Approach", Proc. 10th International Symposium on Applied Reconfigurable Computing (ARC), Vilamoura, Algarve, Portugal, April, 2014
- 10 L. Lavagno, M. Lazarescu, I. Papaefstathiou, A. Brokalakis, J. Walters, B. Kienhuis, Fl. Schaefer, "HEAP: a Highly Efficient Adaptive multi-Processor framework", Microprocessors and Microsystems: Embedded Hardware Design (MICPRO) Journal, vol. 37, issue 8, pages 1050 - 1062, 17 November 2013, ISSN 0141-9331
- 9 D. Pnevmatikatos, T. Becker, A. Brokalakis, K. Bruneel, G. Gaydadjiev, W. Luk, K. Papadimitriou, I. Papaefstathiou, O. Pell, Chr. Pilato, M. Robart, M. Santambrogio, D. Sciuto, D. Stroobandt and T. Todman, "FASTER: Facilitating Analysis and Synthesis Technologies for Effective Reconfiguration", 15th Euromicro Conference on Digital System Design (DSD 2012), Izmir, Turkey, September 2012.
- 8 L. Lavagno, M. Lazarescu, J. Walters, B. Kienhuis, I. Papaefstathiou, A. Brokalakis, Fl. Schaefer, "HEAP: a Highly Efficient Adaptive multi-Processor framework", 15th Euromicro Conference on Digital System Design (DSD 2012), Izmir, Turkey, September 2012.
- 7 A. Brokalakis, I. Papaefstathiou, "Using Hardware-Based Forward Error Correction to Reduce the Overall Energy Consumption of WSNs", 2012 IEEE Wireless Communications and Networking Conference (WCNC 2012), Paris, France, April 2012.
- 6 K. Papadopoulos, A. Brokalakis, I. Papaefstathiou, "Increasing Resistance to Differential Power Analysis Attacks in Reconfigurable Systems", 16th IEEE Mediterranean Electrotechnical Conference (MELECON 2012), Medina Yasmine Hammamet, Tunisia, March 2012.
- 5 G. Chatziparaskevas, A. Brokalakis, I. Papaefstathiou, "An FPGA-based Parallel Processor for Black-Scholes Option Pricing Using Finite Differences Schemes", Design, Automation and Test in Europe 2012 (DATE 2012), Dresden, March 2012.
- 4 A. Brokalakis, V. Paliouras, "Using the Arithmetic Representation Properties of Data to Reduce the Area and Power Consumption of FFT Circuits for Wireless OFDM Systems", IEEE Workshop on Signal Processing Systems (SiPS2011), Beirut, October 2011.
- 3 A. Brokalakis, G.-Gr. Mplemenos, K. Papadopoulos, I. Papaefstathiou, "RESENSE: An Innovative, Reconfigurable, Powerful and Energy Efficient WSN Node", IEEE International Conference on Communications 2011 (ICC2011), Kyoto, Japan, June 2011.
- 2 G.-Gr. Mplemenos, Konstantinos P, A. Brokalakis, Gr. Chrysos, E. Sotiriades, I. Papaefstathiou, "RESENSE: Reconfigurable WSN nodes", Wireless Sensing Showcase, London, July 2009.
- 1 A. Brokalakis, A. Kakarountas, C. Goutis, "A High-Throughput Area Efficient FPGA Implementation of AES-128 Encryption", IEEE Workshop on Signal Processing Systems (SiPS2005), Athens, November 2005.

REVIEWER AT CONFERENCES/JOURNALS

- Reviewer for USENIX 2021 and USENIX 2022
- Reviewer for the IEEE Transactions on Wireless Communications, IEEE Transactions on Computers, IEEE Transactions on Parallel and Distributed Systems, ACM Transactions on Reconfigurable Technology and Systems
- Reviewer for the Design, Automation and Test in Europe Conference 2017 (DATE 2017)
- Member of the Technical Program Committee of the IEEE AFRICON 2015 conference
- Reviewer for the IEEE International Symposium on Circuits and Systems 2013 (ISCAS 2013).
- Reviewer for the International Conference on Field Programmable Logic and Applications (FPL) 2012 - 2018
- Reviewer at the Communication Theory Symposium of the IEEE Global Communications Conference 2010 (GLOBECOM 2010).

MASTER THESIS

- Title - " "
- Supervisor - Prof. Paliouras Vassilis
- Work Outline - Study of the arithmetic behavior of data for a 64-point FFT for OFDM modems and devise of proper arithmetic representations based on BER performance in an OFDM receiver. Design of a radix-8 row-column 64-point FFT architecture using 2's complement arithmetic and hybrid 2's complement and Logarithmic Numbering System (LNS) arithmetic. Performance, area and power comparisons between implementations. Synthesis using Synopsys Design Compiler for .18 μ m CMOS standard-cell library (UMC). Power estimations using ModelSim and Synopsys Power Compiler.

DIPLOMA THESIS

- Title - “ ”
- Supervisor - Prof. Nikolos Dimitris
- Work Outline - Design of a 32-bit RISC Processor with a Dynamic Reconfigurable FPU. Implementation on a Xilinx Virtex FPGA. Development of an assembler to translate assembly code to machine code (in C). Development of Integer routines to simulate FP Instructions (in Assembly to be used internally in the processor). Development of a cycle accurate Processor Simulator (in C).

WORK EXPERIENCE

- March 2015 – present - Linux System Administrator for the servers of the Microprocessor and Hardware Laboratory (MHL) of Electronics and Computer Engineering School, Technical University of Crete
- June 2023 – present - Senior Hardware Engineer, Exascale Performance Systems (EXAPSYS) Ltd. R&D work as part of the EU Research Project [REBECCA \(Reconfigurable Heterogeneous Highly Parallel Processing Platform for safe and secure AI\)](#)
- October 2008 – present - Research Associate / Engineer, Microprocessor and Hardware Laboratory (MHL), Electrical and Computer Engineering School, Technical University of Crete. : Researcher: [H2020 IntelloT](#), Researcher / Hardware Developer for the [H2020 EDRA EU FET Innovation Launchpad Project](#).
- December 2019 – February 2023 - Research Associate, Institute of Computer Science, Foundation of Research and Technology (FORTH). EU research project [H2020 COLLABS \(A COmprehensive cyber-intelligence framework for resilient coLLABorative manufacturing Systems\)](#)
- February 2010 – September 2019 - Senior Computer Engineer, Synelixis Solutions Ltd (<http://www.synelixis.com>)
European Union research projects:
September 2015 – October 2019: H2020 EXTRA (Exploiting eXascale Technology with Reconfigurable Architectures), <https://www.extrahpc.eu/>
February 2015 – February 2018: H2020 COSSIM (A Novel, Comprehensible, Ultra-Fast, Security-Aware CPS Simulator) - <http://www.cossim.org/>
September 2011 – January 2015: FP7 FASTER (Facilitating Analysis and Synthesis Technologies for Effective Reconfiguration) – <http://www.fp7-faster.eu>
February 2010 – March 2013: FP7 HEAP (Highly Efficient Adaptive multi-Processor framework) – <http://www.synelixis.com/portfolios/heap>
- Academic Year 2023-2024 - Lab Assistant for the course "Logic Design" (1st semester, School of Electrical and Computer Engineering, Technical University of Crete, Greece)
- Academic Year 2020-2021 / 2021-2022 / 2022-2023 - Lab Assistant for the course "Computer Organization" (6th semester, School of Electrical and Computer Engineering, Technical University of Crete, Greece)
- Academic Year 2019- 2020 - Lab Assistant for the course "Architecture of Advanced Computer Systems" (School of Electrical and Computer Engineering, Faculty of Engineering, Aristotle University of Thessaloniki, Greece)
- Academic Year 2014-2015 / 2016-2017 - Lab Assistant for the course "Embedded Systems" (7th semester, School of Electrical and Computer Engineering, Technical University of Crete, Greece)
- Academic Year 2013-14 / 2016-17/ 2017-18 - Lab Assistant for the course "Computer Architecture" (8th semester, School of Electrical and Computer Engineering, Technical University of Crete, Greece)
- Academic Year 2000-2001 / 2004-2005 - Supervisor of the Computer Architecture Lab (3rd semester, Computer Engineering and Informatics Dept., Faculty of Engineering, University of Patras, Greece)
- Academic Year 2004-2005 - Supervisor of the Electronics Lab (3rd semester, Computer Engineering and Informatics Dept., Faculty of Engineering, University of Patras, Greece)

TECHNICAL SKILLS

- Programming Languages C/C++ (pthreads, OpenMP, MPI, OpenCL), Java, Assembly, SQL, nes-C / programming for HPC and embedded systems, linux development (applications and system level)
- MarkUp Languages HTML/CSS, XML, XSLT
- Scripting Languages Python, Javascript, PHP, bash/tcsh shell scripting
- Hardware Description Languages Verilog/System Verilog HDL, Vivado HLS (High Level Synthesis)
- Technical Languages Matlab, Maple
- Operating Systems Windows, Linux
- System Administration Linux Server Administrator (CentOS/RedHat, Ubuntu)
- Most Important Software Packages MS Office/Visio/Visual Studio, gcc/gdb/gprof/Valgrind, MathWorks Matlab, Mentor Graphics ModelSim, Xilinx ISE/Vivado/SDAccel/SDSoC/Vitis, Synopsys Design Compiler, Intel Parallel Studio, Petalinux, Wordpress

PROJECTS

- Wireless Sensor Networks / Hardware Design
 - Design of a Turbo Code Encoder for wireless sensor networks. Implementation on CrossBow (MICAz and IRIS) motes in software (nesC – TinyOS) and in hardware attached to those motes (on a Xilinx CPLD / Verilog HDL). Real-world energy measurements of the two implementations. This work was carried out for the EU-funded research project FP7 – Ad-Hoc PAN and Wireless Sensor Secure NETwork (AWISSENET). Associated publications 2, 3 and 7.
 - Design of a matching Turbo Code Decoder for central nodes in extended star topology for WSNs. This work has been the diploma thesis of a Technical University of Crete student under my supervision. Our work resulted in publication 20.
- Bluetooth Proximity Advertising
 - Programming of a Bluetooth Access Server for a Proximity Advertising application for Bluetooth-enabled cellphones. (Embedded Linux, bash scripting, C). Work under contract for Telecommunication Systems Institute.
- Network Security
 - [] Design and development of an Intrusion Detection System (IDS) based on trust metrics (Python, Go, C, Docker, Linux). Work carried out as part of the H2020 IntelloT EU research project – to be open-sourced upon completion of the project (January 2024).
 - [] Design and Implementation of a Moving Target Defense mechanism that controls the network configurations of an IoT deployment and dynamically changes network parameters proactively or reactively (upon the detection of a security incident or warning from an IDS system). (Python, Go, C, Docker, Linux). Work carried out as part of the H2020 IntelloT EU research project – to be open-sourced upon completion of the project (January 2024).
- FPGA Hardware Design
 - Development of an FPGA accelerator for solving tridiagonal systems used in Option Pricing calculations (C/C++, Verilog, XilinxVirtex-5/6FPGAs). Associated publication 5.
 - Development of a reconfigurable (micro/dynamic partial) Network Intrusion Detection System (NIDS) for Gigabit Ethernet networks based on the Snort system (C, Verilog/VHDL, Xilinx Virtex 5 FPGAs). This work was carried out for the EU-funded research project FP7 – FASTER. Associated publications for the project: 9, 11, 12, 13.
 - Development of a retinal image segmentation application for Zynq and Zynq Ultrascale devices (software / hardware codesign). Implementation using Vivado HLS. This work is carried out in the context of EU-funded research project H2020 EXTRA. Associated publications for the project: 14, 15, 16, 17, 19 and 22.
 - Design and development of an accelerator for the Bullet Physics Engine open source library using Xilinx MPSoc Zynq US+ devices (C/C++, Vivado HLS). This work has been the diploma thesis of a Technical University of Crete student under my supervision. Our work resulted in publication 24.
 - Development of an FPGA accelerator for the phylogenetics analysis application RAXML. The accelerator is implemented on the F1 instances of the AWS cloud (C/C++, SDAccel, Vivado HLS). This work has been carried out for the EU-funded project H2020 EDRA. Associated publications 26, 27.
 - Development of an FPGA hardware accelerator for the computation of a verifiable delay function (VDF) as part of an international design contest (System Verilog, Vivado, AWS F1). Design contest website: <https://supranational.atlassian.net/wiki/spaces/VA/pages/36569208/FPGA+Competition>
 - Development of a library of hardware accelerated encryption algorithms for edge systems using Xilinx Kria devices (C, Verilog, Vivado). Hardware devices supplied by AMD/Xilinx as part of a grant. This work has been the diploma thesis of a Technical University of Crete student under my supervision.
 - [] Development of a hardware-accelerated version of the OpenFHE library for Fully Homomorphic Encryption. Development of an FPGA-based hardware accelerator for the Number Theoretic Transforms (NTT) carried out in OpenFHE using Xilinx Alveo U50 accelerator card and transparently connecting it to the library (C/C++, OpenCL, Vitis HLS). This work has been carried out as part of a diploma thesis of a Technical University of Crete student under my supervision (first working version completed, optimization is in progress).
 - [] Development of a dynamic partial reconfiguration mechanism to dynamically alter data cache properties of a RISC-V processor in order to secure it from cache side-channel attacks (Verilog, Vitis, RISC-V CVA6). This work is being carried out as part of a diploma thesis of a Technical University of Crete student under my supervision.

Microprocessor System Design /
Computer Architecture / Hardware
Design

- Development of a multi-core processor (4/8/16/24 cores) based on the Xilinx MicroBlaze microprocessor and implementation of custom cache coherency protocols based on snooping and VIPS schemes. Implementation on Virtex-6 FPGAs of the overall multiprocessor (including CPU cores, custom caches, interrupt controllers, interconnection network, peripherals, memory subsystem, basic I/O and debugging cores). Implementation of support software tools (such as extensions to XilKernel to include multiprocessor support, basic low-level software for system initialization and testing) and software applications for testing and performance measurements. Hardware development in Verilog and custom scripts for system development in Xilinx EDK, software development in C (Xilinx SDK, XilKernel)
This work was carried out for the EU-funded research project FP7 – HEAP. Associated publications: 8 and 10.
- Development of the COSSIM Simulation Framework. The COSSIM simulation framework extends the architectural full system simulator GEM5 enabling it to simulate parallel and networked systems in general. GEM5 is interconnected through HLA with OMNET++ network simulator and a distributed simulation system is formed. Additional work within COSSIM is the extension of McPAT (power/energy estimator) that is integrated in the framework. Several modifications have been made in McPAT that provide higher accuracy results and enable the estimator to be used for all processor models supported in COSSIM.
The overall COSSIM framework has been developed in EU-funded research project H2020-COSSIM and is available as an open source package in GitHub here: <https://github.com/H2020-COSSIM>. Associated publications: 18, 21, 23 and 25.
- Implementation of Forward-Edge Control Flow Integrity extensions to the RISC-V ISA. Extending the CVA6 RISC-V soft-core processor to support CFI extensions under review by the relevant RISC-V committee. This work has been carried out as part of a diploma thesis of a Technical University of Crete student under my supervision.

Technical Funding Proposals

- I have been engaged in several funding proposals either as a participant or a technical lead. The proposals are related to academic grants, national and European research calls as well development and innovation actions. Multiple proposals have been accepted and financed (two academic grants, one national research grant, one national business development grant, three European research and innovation grants).

Technical Lead / Coordination

- Besides the role of researcher / engineer in research projects (verified above), I have participated in multiple multinational projects as a technical manager for the Technical University of Crete and as coordinator for the overall project (both technical and project coordination).

Technical documents

- As part of my involvement in large research projects, I have extended experience in writing technical documents (project deliverables) besides research papers.

OTHER

Professional Licenses

- Member of the Hellenic Technical Chamber since March 2007
- Member of the Institute of Electrical and Electronics Engineers (IEEE) - Circuits and Systems (CAS) Society, Computer (CS) Society and Communications (ComSoc) Society

Army Service

- Completed (August 2007 – August 2008, Technical Corpse, Telecommunications Technician)

Driving Licenses

- Motorcycle, car, motor boat