

Cosmin-Gabriel SAMOILĂ

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EXPERIENȚĂ PROFESIONALĂ

Senior Compiler Engineer II @ Microchip Technology	Aug 2022 - present
Senior Compiler Engineer I @ Microchip Technology MPlab XC32 Compiler (ARM32 and MIPS32 GCC)	Mar 2019 - Apr 2022
Teaching Assistant @ UNST POLITEHNICA București Faculty of Automatic Control and Computer Science: <ul style="list-style-type: none">• Computer Systems Architecture• Parallel Processing Architectures	Oct 2016 - present
Software Engineer @ Adobe Horizon - Tooling Infrastructure	Mai 2022 - Aug 2022
Research Assistant @ UNST POLITEHNICA București CERN - ATLAS Experiment at LHC/ATLAS: <ul style="list-style-type: none">• porting Athena C++ code to accelerators (CUDA)	Apr 2020 - Ian 2022
Linux Kernel Software Engineer @ NXP Semiconductors Audio drivers: <ul style="list-style-type: none">• AK4458• PDM interface• Asynchronous Sample Rate Converter (ASRC)	Sept 2017 - Mar 2019
Scientific Research Assistant @ Space Science Institute High Performance Computing (CORSIKA)	Mar 2018 - Ian 2019
Software Engineer @ Luxoft Network Function Virtualization	Ian 2017 - Aug 2017
Software Engineer @ Intel Runtime Optimizations	Iun 2015 - Ian 2017
Intern - Research @ UNST POLITEHNICA București Face detection and recognition (Computer Vision)	Oct 2014 - Oct 2015
Intern - Software Engineering @ Teamnet Opinion mining for social media and news items	Iul 2014 - Oct 2014

EDUCAȚIE ȘI FORMARE

2018 - present	PhD (High Performance Computing) at SDIALA - UNST POLITEHNICA București
2016 - 2018	Master's Degree (Parallel and Distributed Computer Systems) at Faculty of Automatic Control and Computer Science - UNST POLITEHNICA București
2012 - 2016	Bachelor's Degree (Computer Science) at Faculty of Automatic Control and Computer Science - UNST POLITEHNICA București
2021	Certificate of Examination - ATLAS GPU Training in CUDA at CERN/NVidia
2019	Certificate of Examination - CERN School of Computing at CERN

PUBLICAȚII

Cosmin-Gabriel, Samoila, Carabas Mihai, et al. (2018). "Integrating Parallel Computing in the Curriculum of the University Politehnica of Bucharest". In: *24th International European Conference on Parallel and Distributed Computing*. URL: https://link.springer.com/chapter/10.1007/978-3-030-10549-5_18.

Cosmin-Gabriel, Samoila and Slusanschi Emil-Ioan (2019). "COSMOS-Framework for Combining Optimization and Simulation Software". In: *2019 22nd International Conference on Control Systems and Computer Science (CSCS)*, pp. 162–169. URL: <https://ieeexplore.ieee.org/abstract/document/8744916>.

Gabriel, Samoila Cosmin, Muraru Sebastian, et al. (2020). "Molecular Dynamics Simulations of DNA Adsorption on Graphene Oxide and Reduced Graphene Oxide-PEG-NH₂ in the Presence of Mg²⁺ and Cl⁻ ions". In: *Coatings* 10.3. ISSN: 2079-6412. DOI: [10.3390/coatings10030289](https://doi.org/10.3390/coatings10030289). URL: <https://www.mdpi.com/2079-6412/10/3/289>.

Gabriel, Samoila Cosmin et al. (2023). "COSMOS Framework: Simulation and Optimization of 3D Search". In: *U.P.B Scientific Bulletin - Series C* 85.1. ISSN: 2286-3540. URL: https://www.scientificbulletinupb.ro/rev_docs_arhiva/rezb44_158379.pdf.

PROIECTE

COSMOS Framework	Link to Code
Branch Hinting Tool	Link to Code
PHP Profile Guided Optimization (PGO) Training Benchmark	Link to Code

APTITUDINI SI COMPETENȚE

Limbaje de programare	C, Python, CUDA, C++, Assembly, Bash, Java, Parallel programming (MPI, OpenMP, TBB)
Știința Calculatoarelor	Algorithms and Data Structures, System Design, High Performance Computing, Linux, ARM32 and MIPS32 ISA
Competențe lingvistice	Engleza (C1), Franceza (A1)