

PERSONAL INFORMATION

Catalin Negru



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Sex Male | Date of birth 07/10/1983 | Nationality Romanian

PERSONAL STATEMENT

I have a PhD in Computer Science at the University Politehnica of Bucharest, Faculty of Automatic Control and Computers Computer Department. The main subject of the PhD thesis was "Resource Management for Cost Optimization in Cloud Storage Systems". I graduated in 2008 and took a master's degree in 2011, both in the Faculty of Automatic Control and Computers. Main research interests are in resource management systems Cloud storage, energy efficiency, and optimize cost models. I have an experience of 7 years in research projects of which the most significant are: „DATAWAY: Real-Time Data Processing Platform for Smart Cities: Making sense of Big Data", „CYBERWATER: Prototype Cyberinfrastructure-based System for Decision-Making Support in Water Resources Management", „CLUeFARM: Formation System Based on Cloud Services, Accessible Through Mobile Devices, for Quality Improvement of Products and Business Development in Farms", „SideSTEP: Scheduling Methods for Dynamic Distributed Systems: a self-* approach", „SideDOWN: Smart Internet Data Downloader and Aggregator" . **In these projects, the main activities were to design data storage systems, implement different functionalities using web technologies.**

WORK EXPERIENCE

1 Oct 2015–Present

Associate Teacher

Universitatea Politehnica Bucuresti Departamentul de Calculatoare, Bucuresti (Romania)

Courses I teach:

- Introduction to Big Data (first year of Master);
- Developing Internet Applications using JEE (first year of Master)
- Policies in Distributed Systems (second year of Master);

Laboratory applications:

- Web Programming (using PHP, CSS, HTML, JavaScript, jQuery, AngularJS, AJAX);
- Integration of Information Systems (using GIS technologies).

15 Dec 2008–Present

System Engineer

University Politehnica of Bucharest, Bucuresti (Romania)

- webmaster for the computer science department website;
- manage and monitoring computer systems and infrastructure;
- install, configure, test and maintain operating systems, application software and system management tools.

1 Oct 2005–15 Sep 2007

Web developer

Sonic&Media Service, Bucharest (Romania)

- design web applications

- create websites using Joomla, Wordpress platforms;
- implement web applications using PHP and MySQL;

EDUCATION AND TRAINING

1 Oct 2011–28 Jul 2016

PhD in computers and information technology

Faculty of Automatic Control and Computers, University POLITEHNICA of Bucharest, Bucharest (Romania)

Thesis title: " Resource Management for Cost Optimization in Cloud Storage Systems "

1 Oct 2009–15 Jun 2011

Master (MSc) Advanced Computer Architectures

Faculty of Automatic Control and Computers, University POLITEHNICA of Bucharest, Bucharest (Romania)

1 Oct 2002–15 Jun 2008

Diplomat Engineer in Systems Engineering

Facultatea de Faculty of Automatic Control and Computers, University POLITEHNICA of Bucharestsi Calculatoare Universitatea Politehnica Bucuresti, Bucuresti (Romania)

15 Sep 1998–15 May 2002

Baccalaureate diploma

Colegiul National "Mircea cel Batran", Ramnicu Valcea (Romania)

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	B1	B1	B1	B1	B1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

- **Good communication skills gained during my PhD;**
- **Good presentation skills gained through participation at scientific conferences;**

Job-related skills

- proactive;
- team spirit;
- working under stress.

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Digital skills - Self-assessment grid

Programming languages :

- JAVA/J2EE, Microsoft Visual C#, .Net, PHP;

Web UI technologies:

- XML, HTML/HTML5, XHTML, CSS/CSS3, Bootstrap, JavaScript, JQuery, angular.js, .js, node.js, AJAX, JSON, Grunt and Gulp

Development tools (IDE):

- Eclipse, NetBeans;
- Microsoft Visual Studio;

Operating systems :

- Linux (Ubuntu, CentOS, RedHat);
- Windows (Server 2008, 7, 10);

Driving licence AM, B, BE

ADDITIONAL INFORMATION**Publications**

- 1.Catalin Negru, Mariana Mocanu, Valentin Cristea, Stelios Sotiriadis, and Nik Bessis."Analysis of power consumption in heterogeneous virtual machine environments." Soft Computing (2016): 1-12. (factor de impact 1.630)
- 2.Sotiriadis, Stelios, Nik Bessis, Euripides GM Petrakis, Cristiana Amza, Catalin Negru, and Mariana Mocanu. "Virtual machine cluster mobility in inter-cloud platforms." Future Generation Computer Systems (2016). (factor de impact 2.430) Laura Vasiliu, Florin Pop, Catalin Negru, Mariana Mocanu, Valentin Cristea, Joana Kolodziej. Hybrid Scheduler for Many Task Computing in Big Data Systems. International Journal of Applied Mathematics and Computer Science 2016 (Accepted, Impact factor 1,037).
- 3.Catalin Negru, and Valentin Cristea. "Cost models—pillars for efficient cloud computing: position paper." International Journal of Intelligent Systems Technologies and Applications 12, no. 1 (2013): 28-38.
- 4.Catalin Negru, Florin Pop, Ciprian Dobre, and Valentin Cristea. Performance analysis of Lustre file systems based on benchmarking for a cluster system. U.P.B. Scientific Bulletin Series C, 75:27–36, 2013.
- 5.Florin Pop, Catalin Negru, Sorin N. Ciolofan, Mariana Mocanu, and Valentin Cristea. "Optimizing Intelligent Reduction Techniques for Big Data." In Big Data Optimization: Recent Developments and Challenges, pp. 49-70. Springer International Publishing, 2016.
- 6.Pop, Florin, Ciprian Dobre, Catalin Negru, and Valentin Cristea. „Re-scheduling Service for Distributed Systems". Advances in Intelligent Systems and Computing 187 (2013): 423-437.
- 7.Catalin Negru, Florin Pop, Mariana Mocanu, and Valentin Cristea. Data Modelling and Management in Big Data Era: from Heterogeneity to Uniform and Unified Approach. Data Science and Big Data Computing: Frameworks and Methodologies. Springer International Publishing, 2016.
- 8.Catalin Negru, Florin Pop, Mariana Mocanu, Valentin Cristea, Anca Hangan, and Lucia Vacariu "Cost-aware Cloud Storage Service Allocation for Distributed Data Gathering".Proceedings of Automation Quality and Testing Robotics (AQTR), 2016 IEEE International Conference on Date 19-21 May 2016 Cluj-Napoca, Romania. (indexat ISI)
- 9.Catalin Negru, Florin Pop, Ovidiu Cristian Marcu, Mariana Mocanu, and Valentin Cristea. "Budget constrained selection of cloud storage services for advanced processing in datacenters." In 2015 14th RoEduNet International Conference-Networking in Education and Research (RoEduNet NER), pp. 158-162. IEEE, 2015. (indexat ISI)
- 10.Catalin Negru, Mariana Mocanu, Costin Chiru, Aurelian Draghia, and Radu Drobot. "Cost efficient cloud-based service oriented architecture for water pollution prediction." In Intelligent Computer Communication and Processing (ICCP), 2015 IEEE International Conferenceon, pp. 417-423. IEEE, 2015. (clasa C, indexat ISI)
- 11.Catalin Negru, Mariana Mocanu, and Valentin Cristea. "Impact of Virtual Machines Heterogeneity on Data Center Power Consumption in Data-Intensive Applications." In International Workshop on Adaptive Resource Management and Scheduling for Cloud Computing, pp. 91-102. Springer

International Publishing, 2015. (clasa A*)

Research Projects

- „DATAWAY: Real-Time Data Processing Platform for Smart Cities: Making sense of Big Data"
 - **Real-time Data Processing Platform for Smart Cities focusing on making sense of Big Data by extracting valuable information;**
- „CYBERWATER: Prototype Cyberinfrastructure-based System for Decision-Making Support in Water Resources Management"
 - **e-Platform using advanced computational and communication technology for managing water and land resources;**
- „CLUeFARM: Formation System Based on Cloud Services, Accessible Through Mobile Devices, for Quality Improvement of Products and Business Development in Farms"
 - **Cloud services-based system, using advanced computer technology, automation and communications to increase product quality and business development in the area of farming;**
- „SideSTEP: Scheduling Methods for Dynamic Distributed Systems: a self-* approach"
 - **Improved and new enforcement solutions based on various methods for self-adaptive and faults resilient systems with global optimization criteria for scheduling;**
- „SideDOWN: Smart Internet Data Downloader and Aggregator"
 - **Platform for data aggregation from different web sources.**