Europass
Curriculum Vitae

Personal information

First name(s) / Surname(s)	**Radu Marius Boncea**
Address(es)	
Telephone(s)	
E-mail	radu.boncea@ici.ro
Skype ID	radoolian
Nationality	Romanian
Date of birth	
Gender	Male

Desired employment / Occupational field	Software engineering and research

Work experience

Date	2017-present
Occupation or position held	IT Research Manager and IT Architect
Main activities and responsibilities	Coordinate R&D activities of "Software and complex systems engineering" department (aprox. 15 researchers).
	Coordinate various national and European research projects.
	Coordinate development activities of .ro Top Level Domain Registry.
	Design and architecture of various solutions for .ro Top Level Domain Registry and national beneficiaries.
Name and address of employer	NATIONAL INSTITUTE FOR R&D IN INFORMATICS – www.ici.ro
Type of business or sector	IT R&D

Date	2016-2020
Occupation or position held	IT Research Project Manager
Main activities and responsibilities	Implement EU funded project under Romanian Competitiveness Operational Program (SMIS code 104867, project name "*Crearea de laboratoare privind cercetarea datelor de mari dimensiuni in vederea dezvoltarii unor produse inovative si a unor aplicatii in domeniul internetul viitorului*").
	Coordinate a team of researchers and technicians to deploy and setup research and development platform and infrastructure in the city of Sibiu.
	Coordinate a full-stack development process of several Smart City solutions (Jobs Nearby, Buy Local, City Drops).
Name and address of employer	Anagrama SRL – www.anagrama.ro
Type of business or sector	IT R&D

Date	**2015-2017**
Occupation or position held	*Research Scientist III*

Main activities and responsibilities	Research activities in Cloud Computing, Internet of Things and Domain Name System: • Contribution to CHIRP protocol for IoT as a lightweight stack for M2M communication with lower overhead compared to IP; • Implementing DNSSEC for .ro registry; • Developing the architecture for systems which support long-term preservation of data, data retention in case of Litigation Hold and are legislation-aware (contrained by dynamic legal rules);
Name and address of employer	**NATIONAL INSTITUTE FOR R&D IN INFORMATICS – www.ici.ro**
Type of business or sector	IT R&D

Date	**2013-2017**
Occupation or position held	**IT architect**

Main activities and responsibilities	**eSENS - www.esens.eu**
	• **Task leader for e-Document consolidation:**
	   o Coordinate a team of experts to create the architectural building blocks for the e-Documents starting from the stock-taking assets of the previous Large Scale Pilots (eCodex, PEPPOL, Spocs, STORK, epSOS);
	   o Collaborate with European standardization organizations such as ETSI or ISA.
	• **National coordinator of the Romanian pilot and the experts group:**
	   o Coordinate a team of experts from Romania to contribute in various e-SENS working packages;
	   o Coordinate the national effort to pilot e-SENS building blocks;
	• **Member of Architectural Board**
	   o Propose and agree on reference architectures of e-SENS solution.
	
	Cloud for Europe – www.cloudforeurope.eu
	• **National coordinator and representative of Romania:**
	   o Coordinate a team of experts from Romania to contribute to various working packages in C4E;
	   o Representing Romania as a procurer in the Pre-Commercial Procurement process;
	   o Contributing to the tender specifications and the challenges for the cloud computing industry at European level.
	
	Romania Top Level Domain – www.rotld.ro
	• **Software architect**
	   o Create the software architecture for various applications that are to be used by the .ro domain registry;
	   o Supervise the software implementation and coordinate the ROTLD developers team;
	   o Maintain the enterprise architecture repository;
	   o Conduct research in Cloud Computing (mainly LXC/Docker), AI (needed for data mining apps)
	
	ICI Pro – www.icipro.ro
	• **Lead SOA architect:**
	   o Create the reference architecture for the cloud computing services that are to be used by the national public administration agencies, including the cloud computing resource orchestration and self provisioning of the services.

Name and address of employer	**NATIONAL INSTITUTE FOR R&D IN INFORMATICS – www.ici.ro**
Type of business or sector	IT Research and Development

Date	**2011-2013**
Occupation or position held	**Researcher**

Main activities and responsibilities	**Technical coordination for two work packages of SPCOS project** http://www.eu-spocs.eu/ • Coordinating a team of developers from various countries in implementing functionality and procedures for European cross border services, using Agile (Scrum) methodology • Contribute to SPOCS: analyze, assist software development, research on standards **Contribute to Romania Point of Single Contact implementation** • Define specifications for piloting in several European projects: SPOCS, STORK, PEPPOL • Assist development • Research on semantics, eServices, eDocuments, eSafe **Contribute to ROTLD** • Define specifications, research on standards • Develop software components and applications for managing the .ro domains (Python, Java)
Name and address of employer	*NATIONAL INSTITUTE FOR R&D IN INFORMATICS – www.ici.ro*
Type of business or sector	IT Research and Development
Date	**2006-2011**
Occupation or position held	*Programmer/Developer*
Main activities and responsibilities	**Responsible for developing the .ro management system** • The architecture and implementation of a RESTFUL middleware application using TwistedMatrix framework • Implementing EPP protocol for .ro domain registration and management application • Implementing REST API on top of TwistedMatrix for .ro domain registration and management • Developing the WHOIS and Domain Availability Service by implementing WHOIS protocol using TwistedMatrix • Developing data mining applications (C, Python) • Developing web applications and services for managing the .ro domains (Python) **Developing applications in C and Python for managing the .ro domains**
Name and address of employer	*NATIONAL INSTITUTE FOR R&D IN INFORMATICS – www.ici.ro*
Type of business or sector	IT Research and Development
Date	**2005-2006**
Occupation or position held	Jr. *Programmer/Developer*
Main activities and responsibilities	Developing mobile applications for mobile content delivery systems
Name and address of employer	Faspay Technologies – www.faspay.com
Type of business or sector	IT

Education and training

Dates	**2015-present**
Title of qualification awarded	Ph.D student
Principal subjects/occupational skills covered	Contribution to reliability and scalability of the Internet of Things.
Name and type of organisation providing education and training	Doctoral School of the Faculty of Electronics, Telecommunications and Information Technology, University POLITEHNICA of Bucharest
Dates	**2010-2012**
Title of qualification awarded	Master
Principal subjects/occupational skills covered	The management of electronic documents and information

Name and type of organisation providing education and training	Faculty of Letters, Bucharest University
Dates	**2005-2008**
Title of qualification awarded	Licensed in Informatics
Principal subjects/occupational skills covered	Programming and RDBMS
Name and type of organisation providing education and training	**Faculty of Mathematics and Informatics, Spiru Haret University**
Dates	**1995-1999**
Name and type of organisation providing education and training	**"Tudor Vladimirescu" National College**

Personal skills and competences

- Information technology professional capable of leading technology projects from design concept to delivery with remarkable deadline sensitivity;
- 12 years experience as a lead software engineer;
- strong analytical skills with experience in object oriented programming techniques and abstract thinking;
- compatible team player through complete projects cycles, prototyping, testing, implementation and delivery;
- 8 years experience in software architecture;
- excellent communication skills.

Mother tongue(s)   **Romanian**

Self-assessment

European level (*)

	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C1	C2	C2
French	A2	B1	A2	B1	B1

(*) *Common European Framework of Reference for Languages*

Research activities	1. **RDI projects won and managed**

- **PN 19370401 "New solutions to complex problems in current ITC research areas based on modeling and optimization"**, Programul Nucleu 2019-2022. The project focuses on developing a collection of new solutions to complex problems in current areas of ITC research, based on modeling and optimization. New solutions mean new methods and models, methodologies, algorithms and software, as a result of modeling complex problems.
- **PN18190101 "New research in modeling and optimizing of complex systems with applications in industry, business and cloud computing".** The project proposed and developed new solutions for complex systems with applicability in industry and business. The project had as results new methods, models and optimization software tools usable in the industrial context, multi-criteria decision-making methods, algorithms and software with cloud computing and business applications as well as graph theory algorithms for NP-hard problems with real applications.
- **"Creation of large data research laboratories to drive the development of innovative products and services for the Internet of Future",** cod de proiect ID 34 462, SMIS 2014+, Operational Program Competitiveness 2014-2020 Priority Axis 1. The project aims to develop BigData labs in order to drive the development of innovative products and services for the Future In- ternet. The project objective was to prove the labs capabilities by developing 4 smart-city applications.
- **"Study on adaptive systems for early-stage recognition of cyber attacks on state resources"** within the MCSI Sector Plan 2018-2020. The project aimed at developing a reference architecture for a cyber attack detection system using machine learning models, algorithms and the analysis of metric data collected from the system.

2. **Team member**

- **The European project "EuroCC - National Competence Centers in HPC (High Performance Computing)"** aims to establish, connect and operate a number of 33 national competency centers in HPC in order to facilitate access to HPC technologies, knowledge, expertise, aligned to specific national needs and depending on the level of maturity of the HPC of each state.
- **The European project "Cloud for Europe - C4E"** addresses the objectives of the European Cloud Partnership and helps partners to adopt a well-defined European strategy for cloud computing technology for the public sector. The objectives of the project are: to identify obstacles to the use of Cloud Computing technology in the public sector, to define the services that will overcome these obstacles, to facilitate research by industry and to identify innovative solutions for Cloud services.
- **Core pogram project "Research on advanced policies and solutions to secure critical infrastructure against cyber attacks"** focuses on the area of industrial control systems, the identification of vulnerabilities at organizational structure level, industrial control systems and networks, as well as on applied security procedures that can be exploited involuntarily or voluntarily by one or more attackers thus generating cyber events with strong impact on business, critical infrastructure and national security.

3. **Scientific articles in ISI indexed publications**

1. I Petre, R Boncea, CZ Radulescu, A Zamfiroiu, I Sandu, A Time-Series Database **Analysis Based on a Multi-attribute Maturity Model**, Studies in Informatics and Control, ISSN 1220-1766, vol. 28(2), pp. 177-188, 2019. WOS:000473284800006
2. Alin Zamfiroiu, Ionut Petre, and Radu Boncea. 2019. **Cloud Computing Vulnerabilities Analysis**. In Proceedings of the 2019 4th International Conference on Cloud Computing and Internet of Things (CCIOT 2019). Association for Computing Machinery, New York, NY, USA, 48–53. DOI:https://doi.org/10.1145/3361821.3361830. WOS:000526710900008
3. Carmen Elena CÎIRNU, Carmen Ionela ROTUNĂ, Adrian Victor VEVERA, Radu BONCEA, **Measures to Mitigate Cybersecurity Risks and Vulnerabilities in Service-Oriented Architecture**, Studies in Informatics and Control, 08 2018, ISSN: 1220-1766 eISSN: 1841. WOS:000447079500011
4. Boncea, R., A. Zamfiroiu, and E. Mitan, **Proposing algorithm to improve student evaluation process**, 10th Annual International Conference on Education and New Learning Technologies, Palma de Mallorca (Spain), 2nd - 4th of July, 2018. WOS:000531474300023

5. A. Zamfiroiu and R. Boncea, **Modelling the users' profiles based on their behaviour in social applications**, 2018 10th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), Iasi, Romania, 2018, pp. 1-6, doi: 10.1109/ECAI.2018.8678990. WOS:000467734100060

6. Petre, I., Cohal, A.M., Boncea, R., **e-Participation Platform for Facilitating Citizens Involvement in Smart City Initiatives**, Revista Română de Informatică și Automatică, Volume: 28 Issue: 2 Pages: 5-14, 2018. WOS:000455837200001

7. Zamfiroiu, A., Boncea, R., Petre, I., **Quality of mobile applications based on their development**, Romanian journal of information technology and automatic control, Volume: 28 Issue: 1 Pages: 35-46, 2018. WOS:000455836300003

8. Delia Mihaela Radulescu, Constanta Zoie Radulescu, Gheorghe Lazaroiu, Radu Boncea, **Binary programming models for the server consolidation problem in data centers**, The 18 International Multidisciplinary Scientific GeoConference SGEM 2018, 30 June - 9 July 2018, Albena, Bulgaria

9. C. Z. Radulescu, I. C. Radulescu, R. Boncea and E. Mitan, **A group decision approach based on rough multi-attribute methods for Cloud Services Provider selection**, 2018 10th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), Iasi, Romania, 2018, pp. 1-6, doi: 10.1109/ECAI.2018.8678966. WOS:000467734100036

10. Constanta Zoie RADULESCU, Marius RADULESCU, Radu BONCEA, Ionut PETRE, Ionut-Eugen SANDU, Mihail DUMITRACHE, **A Multicriteria Framework for Cloud Service Providers Selection Based on the Matter Element Extension Method**, Studies in Informatics and Control, ISSN 1220-1766, vol. 30(1), pp. 77-87, 2021. https://doi.org/10.24846/v30i1y202107

11. Boncea, R., Petre, I., Vevera, V., Gheorghita, A. **Machine Learning Based Methods Used for Improving Scholar Performance**. In The International Scientific Conference eLearning and Software for Education 2019 (Vol. 2, pp. 471-478). Carol I National Defence University. WOS:000473324400065.

12. BANCIU, D., PETRE, I., BONCEA, R. **Information and Documentation through New Technologies in E-Learning Process**. In The International Scientific Conference eLearning and Software for Education 2019 (Vol. 2, pp. 465-470). Carol I National Defence University. WOS:000473324400064.

13. Alin Zamfiroiu, Radu Boncea. **Using Decision Tree and Machine Learning to recognize users by their behaviour**. Proceedings of the 16th international conference on informatics in economy (IE 2017). WOS: 000418463600015.

14. Boncea, R., A. Zamfiroiu, and I. Bacivarov, **New method for monitoring microservices in a federated and distributed architecture**, Proceedings of the IE 2018 International Conference, 17-20 May, Iasi, Romania, 2018.

15. Doina Banciu, Radu Marius Boncea, Carmen Ionela Rotuna, Monica Anghel, **Bringing EU Entrepreneurs together through Cross-border Services: SPOCS - a Case Study**, Studies in Informatics and Control", ISSN 1220-1766, vol. 21 (3), pp. 303-314, 2012

4. Scientific articles in BDI indexed publications

1. Radu BONCEA, Ionut, PETRE , Dragos Marian SMADA, Alin ZAMFIROIU, **A Maturity Analysis of Big Data Technologies**, Informatica Economică vol. 21, no. 1/2017, DOI 10.12948, ISSN 14531305

2. Alin Zamfiroiu, Carmen Elena Cîrnu, Radu Boncea, Carmen Rotună, Monica Anghel, **Principii de proiectare, securitate și administrare a soluțiilor de stocare în cloud**, Revista Română de Informatică și Automatică, vol. 25, nr. 2, 2015

3. Radu BONCEA, Ioan BACIVAROV. **System Architecture for Monitoring the Reliability of IoT**, PROCEEDINGS of the 15th International Conference on Quality and Dependability, pp. 143-149, 2016

4. Radu BONCEA, Carmen Elena CIRNU, **Cloud for Europe Project: New Solutions for Addressing Cloud Security Issues**, PROCEEDINGS of the 15th International Conference on Quality and Dependability, PROCEEDINGS of the 15th International Conference on Quality and Dependability, pp.156-160

5. Eugenie STAICUT, Radu BONCEA, Carmen ROTUNA, **A Reliable Archi- tecture for a Massive and Continuous Scanner of Web Vulnerabilities in Internet**, PROCEEDINGS of the 15th International Conference on Quality and Dependability, pp. 176-180

6. Dragos, SMADA, Carmen ROTUNA, Radu BONCEA, Ionut PETRE. **Automated Code Testing System for Bug Prevention in Web-based User Interfaces**, Revista de Informatica Economica, vol. 22, no. 3/2018

7. Alin ZAMFIROIU, Radu BONCEA, Ionut, PETRE, **Quality of mobile applications based on their development**, Romanian Journal of Information Technology and Automatic Control, ISSN 1220-1758, vol. 28(1), pp. 35-46, 2018.
8. Badea, V.E., A. Zamfiroiu, and R. Boncea, **Big Data in the Aerospace Industry**, Revista Română de Informatică și Automatică, vol. 22, no. 1, pp. 17-24, 2018
9. Radu BONCEA, Ionut PETRE, Victor VEVERA, **Building Trust Among Things in Omniscient Internet Using Blockchain Technology**, Romanian Cyber Security Journal, Spring 2019, No. 1, vol. 1.
10. Gabriel Neagu, Ionut Petre, Radu Boncea, Mihail Dumitrache, **Building a business model for service offer integrator in case of cloud-iot based monitoring**, Conference: 18th International Conference on INFORMATICS in ECONOMY. Education, Research and Business Technologies, May 2019, DOI: 10.12948/ie2019.02.05.

Technical skills and competences	**Enterprise and Software Architecture** TOGAF, EIA - European Interoperability Architecture, Archimate, UML, BPMN2 **OS Platforms** Unix FreeBSD, Linux CentOS, Linux RedHat Enterprise, MacOSX **OS Virtualization Platforms** VMWare, Xen, Oracle VM, FreeBSD Jail, LXC, Hyper-V **Cloud Computing** RedHat OpenShift, Apache CloudStack, OpenStack, Docker **System Orchestration** Kubernetes, Apache Mesos, Consul, Etcd **Cluster computing frameworks** Apache Spark, Apache Storm **Programming Languages** C/Ansi C, Python, Java, Golang, Objective-C, GNU Bash ***High Level Frameworks*** TwistedMatrix, Django, TurboGears, web2py, Flask, WxPython, Jython, JAX-RS, Wicket, Hibernate, JPA, Apache CXF, Metro, Spring Framework, Consul.io, Keras/Tensorflow, PyTorch **RDBMS** MySQL, Postgresql, Ingres, SQLite, Apache Cassandra **NoSQL DBMS** CouchDB, MongoDB, Mnesia, Big Table, Redis, Hbase/Hadoop, Prometheus.io, OpenTSDB **Microservices and web services** Memcache, Redis, Varnish, ElasticSearch, Node.js, Flask, RabbitMQ, Apache Kafka **APIs (mobile+desktop)** Cocoa with Objective-C, Python and PyObjC bridge, Flutter **Cloud Platforms/Services/APIs** Google Cloud Services, Amazon Web Services, Amazon SimpleDB and Relational Database Service, RedHat Openshift
Driving licence	B