

Curriculum Vitae



Personal information

First name(s) / Surname(s) **Botoș, Anghel**
Address(es)
Telephone(s)
Fax(es)
E-mail anghel.botos@gmail.com
Nationality Romanian
Date of birth
Gender Male

Desired employment / Occupational field

Work experience

Dates	01.04.2018 – present
Occupation or position held	Software Architect
Main activities and responsibilities	Design and architecture for software solutions Software development using JAVA, JavaScript and related technologies Technical writing (solution descriptions, user guides, etc.)
Name and address of employer	Wolters Kluwer Financial Services / Regnology FRR România The Office Business Center, Bulevardul 21 Decembrie 1989, Nr. 77, 400124 Cluj-Napoca, România
Type of business or sector	Software solutions for the banking sector – Risk and Regulatory Reporting
Dates	01.03.2017 – 31.03.2018
Occupation or position held	Expert Software Engineer
Main activities and responsibilities	Software development using JAVA, JavaScript and related technologies Technical writing (solution descriptions, user guides, etc.)
Name and address of employer	Wolters Kluwer Financial Services The Office Business Center, Bulevardul 21 Decembrie 1989, Nr. 77, 400124 Cluj-Napoca, România
Type of business or sector	Software solutions for the banking sector – Risk and Regulatory Reporting
Dates	01.03.2016 – 28.02.2017
Occupation or position held	Principal Software Engineer
Main activities and responsibilities	Software development using JAVA, JavaScript and related technologies Technical writing (solution descriptions, user guides, etc.)
Name and address of employer	Wolters Kluwer Financial Services The Office Business Center, Bulevardul 21 Decembrie 1989, Nr. 77, 400124 Cluj-Napoca, România
Type of business or sector	Software solutions for the banking sector – Risk and Regulatory Reporting
Dates	01.03.2014 – 29.02.2016
Occupation or position held	Technology Advisor

Main activities and responsibilities	Software development using JAVA, JavaScript and related technologies Technical writing (solution descriptions, user guides, etc.)
Name and address of employer	Wolters Kluwer Financial Services 74-76 C-tin Brâncuși Str., 400462 Cluj-Napoca, România
Type of business or sector	Software solutions for the banking sector – Risk and Regulatory Reporting
Dates	22.03.2010 – 28.02.2014
Occupation or position held	Senior Software Engineer
Main activities and responsibilities	Software development using JAVA, JavaScript and related technologies Technical writing (solution descriptions, user guides, etc.)
Name and address of employer	FRSGlobal Romania SRL (part of Wolters Kluwer Financial Services) 74-76 C-tin Brâncuși Str., 400462 Cluj-Napoca, România
Type of business or sector	Software solutions for the banking sector – Risk and Regulatory Reporting
Dates	01.10.2025 – 14.02.2026, 01.10.2024 – 14.02.2025, 01.10.2023 – 14.02.2024, 01.10.2022 – 14.02.2023, 01.10.2021 – 14.02.2022, 01.10.2020 – 14.02.2021, 01.10.2019 – 14.02.2020, 01.10.2018 – 14.02.2019, 01.10.2017 – 14.02.2018, 01.10.2016 – 14.02.2017, 01.10.2015 – 14.02.2016, 01.10.2014 – 14.02.2015; 01.10.2013 – 14.02.2014, 01.10.2012 – 14.02.2013
Occupation or position held	Associate Teaching Assistant
Main activities and responsibilities	In charge with application classes for Modulation Techniques, TST 3 rd year
Name and address of employer	Technical University of Cluj-Napoca 15 C-tin Daicoviciu Str., 400020 Cluj-Napoca, România
Type of business or sector	Information Theory / Error and Erasure Correcting Codes / Wireless and Wired Transmissions / Wireless and Wired Technologies / Internet Protocols
Dates	01.10.2008 – 30.03.2012
Occupation or position held	PhD Student
Main activities and responsibilities	Theoretical studies Software development (simulators) using C/C++, OMNeT++, MatLab, JAVA Technical writing (research reports and scientific papers)
Name and address of employer	Technical University of Cluj-Napoca 15 C-tin Daicoviciu Str., 400020 Cluj-Napoca, România
Type of business or sector	Information Theory / Error and Erasure Correcting Codes / Wireless and Wired Transmissions / Wireless and Wired Technologies / Internet Protocols
Dates	01.06.2008 – 30.09.2008
Occupation or position held	Research assistant
Main activities and responsibilities	Theoretical studies Software development (simulators) using C/C++, OMNeT++, MatLab, JAVA Technical writing (research reports and scientific papers)
Name and address of employer	Technical University of Cluj-Napoca 15 C-tin Daicoviciu Str., 400020 Cluj-Napoca, România
Type of business or sector	Information Theory / Error and Erasure Correcting Codes / Wireless and Wired Transmissions / Wireless and Wired Technologies / Internet Protocols
Dates	02.2007 – 05.2007
Occupation or position held	Internship (iQuest Java Internship)
Main activities and responsibilities	Attending training sessions Development (together with a team) of a web application for online CV management using JAVA technologies Development (together with a team) of a reusable user management module for other applications using JAVA technologies
Name and address of employer	iQuest Technologies SRL 6-8 Moșilor Str., 400001 Cluj-Napoca, România
Type of business or sector	Software development
Dates	02.2007 – 07.2007

Occupation or position held	Research scholarship (Siemens 2007 Semester Research Scholarship)
Main activities and responsibilities	Theoretical studies / Software development / Technical writing (research reports)
Name and address of employer	Siemens PSE România SRL, Cluj-Napoca, România
Type of business or sector	Wireless Transmissions / Information theory / Error Correcting Codes
Dates	03.07.2004 – 03.10.2004; 29.06.2005 – 02.10.2005; 28.06.2006 – 02.10.2006; 04.07.2007 – 25.09.2007
Occupation or position held	Waiter / Shift manager / Cashier
Main activities and responsibilities	Interaction with customers, taking food and beverage orders, bringing food and beverages to the customers' tables Ensuring the good operation of the restaurant, checking of incomes at the end of the shift, checking of all installations and equipment before closing the restaurant. Cashing in customers' checks
Name and address of employer	Big-Horn Restaurant Inc. 401 W. Elkhorn Ave., 80517 Estes Park, CO, USA
Type of business or sector	Tourism, Food industry
Education and training	
Dates	01.10.2008 – 30.03.2012
Title of qualification awarded	PhD in Electronic Engineering and Telecommunications
Principal subjects/occupational skills covered	Modern erasure coding techniques / Network coding techniques / State of the art network technologies
Name and type of organisation providing education and training	Technical University of Cluj-Napoca Communications Department
Level in national or international classification	ISCED 6
Dates	01.10.2007 – 30.06.2009
Title of qualification awarded	Master of science in engineering (Telecommunications)
Principal subjects/occupational skills covered	Advanced telecommunications technologies / Advanced digital signal processing / Software development
Name and type of organisation providing education and training	Technical University of Cluj Napoca; Faculty of Electronics, Telecommunications and Information Theory
Level in national or international classification	ISCED 5
Dates	01.10.2002 – 30.06.2007
Title of qualification awarded	Bachelor of science in engineering (Telecommunications)
Principal subjects/occupational skills covered	Telecommunications technologies / Signal processing / Software development / Electronics
Name and type of organisation providing education and training	Technical University of Cluj Napoca; Faculty of Electronics, Telecommunications and Information Theory
Level in national or international classification	ISCED 5
Dates	01.10.2002 – 30.06.2006
Title of qualification awarded	Bachelor of science in mathematics and physics
Principal subjects/occupational skills covered	Advanced Calculus, Algebra, Differential Equations, Quantum physics, Relativity theory
Name and type of organisation providing education and training	Babeş-Bolyai University, Cluj-Napoca Faculty of Physics
Level in national or international classification	ISCED 5
Dates	01.10.2002 – 30.06.2008

Title of qualification awarded
Principal subjects/occupational skills covered
Name and type of organisation providing education and training
Level in national or international classification

Civil law, Penal law, Public and administrative law
Babeş-Bolyai University, Cluj-Napoca
Faculty of Law
ISCED 5

Dates 15.09.1998 – 07.07.2002

Title of qualification awarded
Principal subjects/occupational skills covered
Name and type of organisation providing education and training
Level in national or international classification

Baccalaureate
Mathematics / Physics / Intensive English
"Mihai Eminescu" High School, Satu Mare
ISCED 3

Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment
European level ()*

English

German

French

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
A2	Basic user	A2	Basic user	A1	Basic user	A1	Basic user	A1	Basic user

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences

Team work: I work at a software development company that employs more than 100 people at our Cluj office. My regular activity requires constant interaction with other team members, thus I am accustomed to team work.

Intercultural skills: The software company I work for has offices in several countries. In order to fulfill my duties I have to interact with employees from other countries (UK, Belgium, India).
I participated in different European cooperative projects comprising research teams from several countries.

Communication skills: Given that I have to interact on a daily basis with several team members, some from our local office, some from the offices abroad, I would say that my communication skills are highly developed.

Organisational skills and competences

My activities at the company I work for also include guidance of junior team members. I also act as the team leader for the project I work on. This includes setting up the quarterly planning, assigning tasks to team members, following up on their progress with their tasks, etc.
Participation in the guidance of students while elaborating their diploma papers
Participation in the preparation and elaboration of laboratory works for "Modulation Techniques"

Technical skills and competences	Programming: Java SE, EE, ME SQL (Oracle, MySQL, PL SQL) JavaScript HTML, XML, JSP, DTD, XSD, XSLT, XPath C/C++/C# MatLab/Octave ASM (x86) ASM/C for DSPs Frameworks/Tools: Log4J, Junit, Ant, make, maven, jBPM, Struts, Selenium, OLAP Productivity: Git, SVN, TFS, TeamCity, Bugzilla, Jenkins, Jira, Nexus Design: OrCAD, gEDA LabView VHDL/Verilog for FPGAs – Xilinx WebPack and ISE Foundation GAL, PAL, CPLD
Computer skills and competences	Good knowledge of the Microsoft Office / Open Office suites Above average knowledge of the LATEX typesetting system Good knowledge of Microsoft Windows and Linux OS
Driving licence	Yes (cat. A and B)

Papers and publications

European research projects, contributions to deliverables:

Enhanced Wireless Communication Systems Employing COoperative DIversity, FP7-ICT-2007-215477 CODIV

D3.2a - "Preliminary PHY layer algorithm selection for integration in the prototypes";

D3.3a - "Preliminary advanced PHY layer algorithm selection and results";

D4.2a - "Preliminary RRM and MAC algorithm selection for integration in the prototype";

D4.2b - "Final RRM and MAC algorithm selection for integration in the prototypes".

Architecture and Design for the Future Internet, FP7-ICT-2007-1-216041 4WARD

D5.2 - "Mechanisms for Generic Paths".

Conference papers:

Vasile Bota, **Anghel Botoș**, "Theoretical Performance Evaluation of a Concatenated Rateless-FEC Coding Scheme", Proceedings of the 13th International Conference on Communications – COMM 2020, ISBN 978-1-7281-5611-8, <https://doi.org/10.1109/COMM48946.2020.9142031>, indexed in IEEE Xplore

Corina Bota, **Anghel Botoș**, Mihaly Varga, Vasile Bota, "Adaptive Use of Two Decode-and-Forward Algorithms in Relay-Enhanced Wireless Transmissions", Proceedings of IWCMC2011 - The 7th International Wireless Communications and Mobile Computing Conference, 05-08 July 2011, Istanbul, Turkey, indexed in IEEE Xplore;

Anghel Botoș, Vasile Bota, Mihai P. Ștef, "Performance Evaluation of Rateless Erasure Correcting Codes for Content Distribution", Proceedings of "RoEduNet" International Conference - Networking in Education and Research 2011, 23-25 June, 2011, Iași, Romania, indexed in IEEE Xplore;

Anghel Botoș, Vasile Bota, Mihai P. Ștef, "Study of a Linear Coding Enhanced Swarm Network", Proceedings of ICCP2011 - Intelligent Computer Communication and Processing, volume 1, pp. 415-421, 25-27 August 2011, Cluj-Napoca, Romania, ISBN 978-1-4577-1478-8, indexed in IEEE Xplore;

Anghel Botoș, Zsolt Alfred Polgar, Zsuzsanna I. Kiss, "FECTCP for High Packet Error Rate Wireless Channels", Proceedings of the 8th International Conference on Communications - COMM2010, volume 2, 327-330, June 2010, Bucharest, ISBN 978-1-4244-6361-9, indexed in IEEE Xplore;

Mihai P. Ștef, Zsolt Alfred Polgar, Vasile Bota, **Anghel Botoș**, "Network-Coded Cooperation Algorithm for Multiple Source - Multiple Relay Topologies in Cellular Networks", Proceedings of the 8th International Conference on Communications - COMM2010, volume 2, 285-288, June 2010, Bucharest, ISBN 978-1-4244-6361-9, indexed in IEEE Xplore;

Anghel Botoș, Zsolt Alfred Polgar, Vasile Bota, "Analysis of a Transport Protocol Based on Rateless Erasure Correcting Codes", Intelligent Computer Communication and Processing (ICCP), volume 1, 465-471, August 2010, Cluj-Napoca, ISBN 978-1-4244-8228-3, indexed in IEEE Xplore.

Journal papers:

Vasile Bota, Zsolt Alfred Polgar, A. Silva, S. Teodoro, Mihai P. Ștef, A.Moco, **Anghel Botoș**, A. Gameiro, "Combined Distributed Turbo Coding and Space Frequency Block Coding Techniques", EURASIP Journal on Wireless Communications and Networking, vol. 2010, Article ID 327041, 14 pages, 2010, doi: 10.1155/2010/327041;

Anghel Botoș, Mihai P. Ștef, Aurel Vlaicu, "Study on the Performance of Coding-Assisted Swarm Communications", Acta Technica Napocensis, vol. 50, no. 1, 2009, pages 19-24, ISSN 1221-6542;

Mihai P. Ștef, **Anghel Botoș**, Aurel Vlaicu, "Performance Analysis of Network Coding-Based Cooperation Algorithms Employed in Cellular Networks", Acta Technica Napocensis, vol. 50, no. 1, 2009, pages 25-30, ISSN 1221-6542;

Anghel Botoș, Mihai P. Ștef, Aurel Vlaicu, "Study of the Decoding Complexity for Rateless Erasure Codes", Acta Technica Napocensis, vol. 52, no. 4, 2011, pages 30-35, ISSN 1221-6542.

Contributions cited in published books:

"Pervasive Mobile and Ambient Wireless Communications", Springer, ISBN 978-1-4471-2314-9, <http://www.springer.com/engineering/signals/book/978-1-4471-2314-9>

M. Ștef, V. Bota, **A. Botoș**, D. Stoiciu, "Combined Network and Distributed FEC Coding Cooperation Schemes for the Two-Way Relay Channel", presented at the COST 2100 7th MCM, Braunschweig, Germany, in chapter 8, section 3;

M. Ștef, L. Boita, **A. Botoș**, Zs. Polgar, "Network-Coded Cooperation Analysis for Multiple Source-Multiple Relay Architectures", presented at the COST 2100 8th MCM, Valencia, Spain, in chapter 12, section 1.

"Architecture and Design for the Future Internet", Springer Netherlands, Eds: Luis M. Correia, Henrik Abramowicz, Martin Johnsson, Klaus Wunzel, and others, 2011, ISBN 978-90-481-9345-5, doi: 10.1007/978-90-481-9346-2, in chapter 12, section 6.

Contributions to European COST deliverables:

V. Bota, **A. Botoș**, "*Performance Evaluation of Relay-assisted Cooperative Transmission Schemes Using Two-Level Rateless-FEC Coding*", 6th MCM COST IC1004, February 2013, Malaga;

V. Bota, **A. Botoș**, "*Theoretical Performance Evaluation of a Two-Level Rateless-FEC Coding Scheme*", 4th MCM COST IC1004, May 2012, Lyon

Participation in European COST Actions:

2016 – present – part of the Technical University of Cluj-Napoca team that participates in the COST CA15104 IRACON „*Inclusive Radio Communication Networks for 5G and beyond*";

2011 – 2015 – part of the Technical University of Cluj-Napoca team that participates in the COST IC 1004 "*Cooperative Radio Communications for Green Smart Environments*"

IEEE Communications Society Member since 2009

Participant at the **3rd COST2100 Training School** – "*Cooperating Objects and Wireless Sensor Networks*" - May 10th - 12th, 2010, Bologna, Italy

References:

Vasile BOTA, Eng., PhD, Professor, Technical University of Cluj Napoca, Communications Department, Phone +40264401906