

Universitatea de Vest din Timișoara

Nr. Inregistrare*INT 2025.07.14. — 004727*.....

În atenția Biroului Electoral Central UVT

DOSAR de CANDIDATURĂ

la o poziție în Consiliul

Departamentului de Științe Computaționale și Inteligență Artificială

Candidat: Conf. Univ. Dr. Isabela DRĂMNESC

Departamentul de Științe Computaționale și Inteligență Artificială

Facultatea de Informatică

Scrisoare de motivare a candidaturii

pentru un mandat în

Consiliul Departamentului de Științe Computaționale și Inteligență Artificială

Subsemnata, Isabela Drămnesc, conferențiar universitar doctor la Departamentul de Științe Computaționale și Inteligență Artificială, Facultatea de Informatică, îmi exprim prin prezenta intenția de a candida pentru un mandat de *membru în Consiliul Departamentului de Științe Computaționale și Inteligență Artificială*. Motivația mea principală este dorința de a contribui activ la dezvoltarea sustenabilă și strategică a departamentului, atât în plan academic, cât și în cel al cercetării științifice. Pe parcursul carierei mele, am fost membră în Senatul UVT, membră în Consiliul Departamentului, precum și în Consiliul Facultății, acumulând o experiență valoroasă în procesele decizionale, în formularea și implementarea politicilor academice și administrative. Această experiență îmi oferă o înțelegere clară a nevoilor și provocărilor cu care se confruntă comunitatea noastră academică.

În noul mandat îmi propun să continui implicarea activă în acțiuni care vizează: *internaționalizarea, imaginea și promovarea departamentului*:

- ☐ Creșterea vizibilității interne și internaționale a Departamentului de Științe Computaționale și Inteligență Artificială atât în plan academic (prin susținerea acțiunilor de promovare a programelor de studii, de atragere a studenților străini), cât și în planul cercetării științifice (prin participarea la evenimente științifice cu caracter internațional),
- ☐ Elaborarea și punerea în practică a unei strategii de colaborare cu profesori și cercetători din diferite părți ale lumii (prin efectuarea unor vizite la universități atât din Europa, cât și din alte continente; și prin implicarea în proiecte internaționale).

Experiența mea recentă în coordonarea și gestionarea proiectelor internaționale susține această viziune. Am fost director de proiect european Erasmus+ Parteneriate Strategice pentru Învățământul Universitar *Automated Reasoning in the Class (ARC)* 2019-2022, în parteneriat cu universități de prestigiu din Germania, Austria, Franța și Ungaria, iar în prezent coordonez proiectul european Erasmus+ Parteneriate de Cooperare pentru Învățământul Universitar *Artificial Intelligence based Robotics (AiRobo)* 2023-2026, în colaborare cu parteneri din Grecia, Germania, Ungaria, Franța și Austria. Prin aceste proiecte am reușit să atrag parteneri valoroși și să construiesc rețele de colaborare pe termen lung, contribuind la vizibilitatea și impactul internațional al departamentului și al facultății. Depun eforturi constante pentru menținerea acestor legături și pentru identificarea de noi oportunități de colaborare.

Consider că experiența dobândită în coordonarea proiectelor internaționale, în gestionarea echipelor multidisciplinare și în promovarea imaginii instituționale poate fi valorificată în cadrul Consiliului Departamentului, în beneficiul colegilor și al studenților.

Vă mulțumesc pentru încrederea acordată!

Timișoara, 14.07.2025

Semnătura,

PERSONAL INFORMATION

Isabela Drămnesc



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🌐 staff.fmi.uvr.ro/~isabela.dramnesc

☎ Skype: isabeladramnesc

Sex F | Date of birth 18/11/1984 | Nationality Romanian

WORK EXPERIENCE

October 2023 - present

Associate Professor

West University of Timișoara, Faculty of Mathematics and Computer Science, Department of Computer Science

- Teaching, evaluation, supervision, tutoring, research
- A WUT welcome & an example of a mini-course that I teach:
(in EN) <https://www.youtube.com/watch?v=MvnjXrhtaHY>
and (in RO) https://www.youtube.com/watch?time_continue=4&v=sc9bCWH8Tzl

Sector Education

January 2016 – September 2023

Lecturer

West University of Timișoara, Faculty of Mathematics and Computer Science, Department of Computer Science

- Teaching, evaluation, supervision, tutoring, research

Sector Education

March 2013 – January 2016

Teaching Assistant

West University of Timișoara, Faculty of Mathematics and Computer Science, Department of Computer Science

- Teaching, evaluation, supervision, tutoring, research

Sector Education

February 2009 – March 2013

Preparator

West University of Timișoara, Faculty of Mathematics and Computer Science, Department of Computer Science

- Teaching, evaluation, supervision, research

Sector Education

EDUCATION AND TRAINING

1 October 2017 – 14 December 2017

Training in PBL (Problem Based Learning)

Maastricht University, Netherlands and West University of Timisoara, Romania

- Member of the project: Integrated Continuous Psycho-pedagogical Training System for University Teachers in West University of Timisoara, a project of Academic Development Center of West University of Timisoara in partnership with Maastricht University, Netherlands;
- PBL-MOOC (October 2017– December 2017): Online course certificate on Problem Based Learning: Principles and Design provided by School of Health Professions Education of Maastricht University, Netherlands
- Training stage (November 2017) at Maastricht University, Netherlands;
- Trainings at West University of Timisoara with experts from Maastricht University, Netherlands

1 June 2014 – 13 December 2015

Postdoctoral position in Computer Science

Faculty of Mathematics and Computer Science, Department of Computer Science, West University of Timisoara, Romania mentor Prof. Dr. Tudor Jebelean from Johannes Kepler University, Research Institute for Symbolic Computation, Linz, Austria.

- Research in the field of automated reasoning, logic, algorithm synthesis on binary trees, the Theorema system, the Coq system.
- POSDRU Grant (1 June 2015 – 30 July 2015) – Research Stage at INRIA, Sophia-Antipolis, France

1 October 2008 – 7 December 2012

Ph.D Degree in Computer Science

Faculty of Mathematics and Computer Science, Department of Computer Science, West University of Timisoara, Romania under the supervision of Prof. Dr. Tudor Jebelean from Johannes Kepler University, Research Institute for Symbolic Computation, Linz, Austria.

- PhD Thesis: "*Case Studies on Algorithm Synthesis and Theory Exploration in Theorema*"
- Research in the field of automated reasoning, logic, algorithm synthesis on lists, sets, monotone lists, the Theorema system.
- European Project (1 October – 15 December 2011) Research Stage at Johannes Kepler University, Research Institute for Symbolic Computation, Linz, Austria;
- Austrian Grant (15 May - 31 July 2011) Research Stage at Johannes Kepler University, Research Institute for Symbolic Computation, Linz, Austria;
- Erasmus Grant (1 February 2010 - 3 July 2010) Studies at Johannes Kepler University, Research Institute for Symbolic Computation, Linz, Austria;

September 2007 – June 2010

Sc. Degree in Music

Center of Culture and Art, Timisoara School of Arts, Timis County, Romania

- The study included: Classical Music, International Music, Traditional Music, Musical Theory; and Instrument (Piano);
- *Vocal Artist Diploma* (graduated with 10 – the maximum degree).

October 2007 – July 2009

M.Sc. Degree in Computer Science applied on Science, Economy

Faculty of Mathematics and Computer Science, Department of Computer Science, West University of Timisoara, Romania

October 2003 – July 2007

Bachelor Degree in Mathematics and Computer Science

Faculty of Mathematics and Computer Science, Department of Computer Science, West University of Timisoara, Romania

- The study included: Mathematical Analysis, Algebra, Geometry, Differential Equations, Numerical Analysis, Mechanics, Probability and Statistics, Computer Science Bases, Algorithms and Programming, Information Systems for Economy, Formal Languages, Data Structures.
- Bachelor Thesis: "*Polynomial factorization*", Scientific advisor: Prof. Dr. Gheorghe Ivan.

September 1999 – June 2003

High School

National College "Decebal", Deva, Romania

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Spanish	C2	A2	B2	B2	A1
French	B1	B1	A2	A2	A2

Communication skills

- good communication skills gained through my experience: as a teacher, as a tutor, as a team leader in organizing international conferences, workshops and other events held in our department of Computer Science and in other countries
- working in national and international teams
- social counselling
- intercultural skills
- social skills for cultural and artistic activities carried out in parallel with the professional activity

Organisational / managerial skills

Leadership and organizational skills.

- Conference organizer or local chair: SYNASC 2009-2019, SYNASC 2022, 2023 www.synasc.ro, PAS 2015 <http://pas2015.cc4cm.org>, FROM 2019 <http://from2019.projects.uvt.ro>, ARC events 5 international trainings, 1 international summer school, 1 international symposium <https://arc.info.uvt.ro>, the International AiRobo conference 2023 and the International Training on Verification of Robotic Algorithms and PBL March 2024 <https://airobo.info.uvt.ro/events>
- member of Senate of West University of Timisoara in February 2019 – March 2020,
- member of Faculty of Mathematics and Computer Science Council in November 2019 – present.
- member of Computer Science Department Council of West University of Timisoara in November 2019 – November 2023,
- manager of European projects Erasmus+ cooperation and strategic partnerships for Higher Education:
 - project KA203 ARC (Automated Reasoning in the Class) 2019 – 2022 <https://arc.info.uvt.ro> (partner universities from Austria, France, Germany, Hungary);
 - project KA220 AiRobo (Artificial Intelligence based Robotics) 2023 – 2026 (partner universities from: Greece, Hungary, Germany, France).

Job-related skills

System Experience

- Working Experience on PCs (Mac OS, Windows 95, 98, XP, Vista, 7, 8, 10)
- Programming Languages:
 - ☐ Imperative: C, Pascal, Python,
 - ☐ Object-Oriented: C++, Java,
 - ☐ Declarative: Prolog,
 - ☐ Functional: Lisp, Scheme/Racket,
 - ☐ Other: Maple, Mathematica, Theorema
- Other: LaTeX, Office, FoxPro, Html.

Digital competence

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

Other computer skills:

- good web developer (webpages created: <http://staff.fmi.uvt.ro/~isabela.dramnesc>)

Other skills

Vocal artist passionate on Romanian traditional music, a very good composer of songs and poems, a very good dancer, a very good hairstylist, a good chess player, a good painter, a passionate driver.

Driving licence

Driving licence category B since December 2002.

Publications
Presentations
Projects
Conferences
Seminars
Honours and awards
Memberships
References
Citations
Courses

Publications:

- 7 journal articles (from which 2 are ISI core rank A, and one ISI rank B),
- 28 conference articles (from which 19 are ISI core rank C, 3 ISI core rank B),
- 8 international technical reports published in RISC Report Series, Research Institute for Symbolic Computation, University of Linz, Austria
- 2 books: Editura Universității de Vest, Timișoara

Presentations at international conferences, workshops and seminars:

- Ukraine: *2009 Seminar* at National Taras Shevchenko University in Kiev,
- Austria: *SCSS 2010* at Johannes Kepler University of Linz; *CIAO 2010* at RISC Hagenberg; *RISC Theorema Seminar 2010* at RISC, Hagenberg; *RISC Theorema Seminar 2011* at RISC, Hagenberg; *Vienna Summer of Logic 2014* at Vienna University of Technology,
- Serbia: *SISY 2012, SISY 2014, SISY 2015, SISY 2019* in Subotica,
- Slovakia: *SAMI 2020* in Herl'any,
- France: *INRIA Seminar 2015* in Sophia-Antipolis Cote d'Azur,
- Georgia: *CICM 2022* in Tbilisi,
- Spain: *INTED 2022* in Valencia,
- USA: *ED-MEDIA 2022* in New York,
- Turkey: *MACIS 2019* in Gebze-Istanbul,
- Japan: *SCSS 2025* in Tokyo,
- Croatia: *SISY 2023* in Pola, *LAP 2025* in Dubrovnik,
- Romania: *SYNASC 2010, SYNASC 2011, SYNASC 2012, Scientific Seminar UVT 2012, Annual PhD Students Session 2012, SYNASC 2015, FROM 2019, FROM 2024* at West University of Timisoara; *FROM 2020; SACI 2012, SACI 2016, SACI 2020, SACI 2021* at Politehnica University of Timisoara; *CRM 2023* at University of Pitesti,
- Mauritius: *LPAR 2024* in Port Louis,
- Maldives: *ICECCME 2024* in Male,
- Portugal: *ICINCO 2024* in Porto,
- India: *TALE 2024* in Bengaluru

Projects:

- SciCom (Scientific Computing Platform) bilateral project, collaboration Romania-Austria, July 2010 – August 2010 – Young Visiting Researcher RISC, Linz, Austria;
- SPRERS (Strengthening the Participation of Romania at European R&D in Software Services), West University of Timisoara, 1 October 2011 – 15 December 2011 – Young Visiting Researcher RISC, Linz, Austria;
- HOST (High Performance Computing Service Center), West University of Timisoara, 1 January 2012 – 31 December 2014;

- POSDRU/159/1.5/S/137750, Project Doctoral and Postdoctoral programs support for increased competitiveness in Exact Sciences research cofinanced by the European Social Fund within the Sectoral Operational Programme Human Resources Development 2007 – 2013, West University of Timisoara, 1 June 2014 - 13 December 2015;
- Integrated Continuous Psycho-pedagogical Training System for University Teachers in West University of Timisoara, Maastricht University, Netherlands, 1 October – 15 December 2017;
- Discover WUT, West University of Timisoara, May 2018;
- **ARC** Project Erasmus+ Strategic Partnership for Higher Education: **Automated Reasoning in the Class (as project manager)**, West University of Timisoara, 1 October 2019 – 31 August 2022 <https://arc.info.uvt.ro>.
- **AiRobo** Project Erasmus+ Cooperation Partnership for Higher Education: **Artificial Intelligence based Robotics (as project manager)**, West University of Timisoara, 1 December 2023 – 30 November 2026 <https://airobo.info.uvt.ro>

Trainings, Tutorials, Seminars, Workshops, and Summer Schools:

- CIAO workshop, 3-5 August 2010, Research Institute for Symbolic Computation (RISC) in Hagenberg, Austria, <http://www.risc.jku.at/conferences/ciao2010/?content=program>
- Summer School on Language Frameworks, Sinaia, Romania, July 23-31, 2012. <https://fmse.info.uaic.ro/events/SSLF12>
- Tutorial on Programming Language Design and Analysis using the K Framework, 29 September 2012, West University of Timisoara, Romania, <http://synasc12.info.uvt.ro/tutorials/tutorial-k-framework>
- Workshop of e-Infrastructure for Public Sector, 21-23 March, 2013, West University of Timisoara, <http://host.hpc.uvt.ro/events/workshop-of-e-infrastructure-for-public-sector>
- Seminar „Training Proiecte FP7, PN II and POSDRU”, 26.04.2013, Timisoara, Romania, <http://www.cercetare.uvt.ro/seminar-training-proiecte-fp-7-pnii-posdru>
- Info Day H2020-ICT, 16 December 2013, West University of Timisoara, <http://host.hpc.uvt.ro/events/infoday-h2020-ict>
- 2014 Tarragona International Summer School on Trends in Computing, Tarragona, Spain, July 7-11, 2014, <http://grammars.grlmc.com/sslic2014>
- Erasmus+ Strategic Partnerships for Higher Education Workshop, February 2019, Politehnica University of Bucharest, National Agency ANPCDEFP, <https://www.erasmusplus.ro/evenimente-det/vrs/IDev/1403>
- Tutorial on “The Theorema Proof Assistant”, September 2017, Timisoara, Romania, <https://synasc.ro/2017/tutorials-2/wolfgang-windsteiger>
- STP Valencia Languages & IT Training for University Staff, June 2019, Politehnica University of Valencia, Spain <http://staffmobility.eu/staffweek/18th-stp-valencia-languages-it-training>
- STP Valencia Languages & IT Training for University Staff, June 2022, Politehnica University of Valencia, Spain, <http://staffmobility.eu/staffweek/23rd-stp-valencia-languages-it-training>
- Training in How to plan and run a summer school successfully, EAIE Autumn Academy, November 18-22, 2019, Central European University in Budapest, Hungary <https://www.eaie.org/training/past-academies.html>
- Erasmus+ Strategic Partnerships for Higher Education, Workshop on Disseminating, 22- 27 April 2021, (online), National Agency ANPCDEFP, <https://www.erasmusplus.ro/evenimente-det/vrs/IDev/1902>
- International Training in Theorema, 16.03.2021 – 01.04.2021, Johannes Kepler University of Linz, Austria (online) within the Erasmus+ Strategic Partnership project ARC Automated Reasoning in the Class, https://arc.info.uvt.ro/?page_id=335
- International Training in SMT, 19.05.2021 – 04.06.2021, RWTH, Aachen University, Germany (online) within the Erasmus+ Strategic Partnership project ARC Automated Reasoning in the Class, https://arc.info.uvt.ro/?page_id=551
- International Training in Problem based Learning, 30.08.2021 – 03.09.2021, West University of Timisoara, Romania, https://arc.info.uvt.ro/?page_id=557
- International Summer School on Computational Logic, 04.07.2022 – 08.07.2022, Johannes Kepler University, Linz, Austria, https://arc.info.uvt.ro/?page_id=603
- International Training in SAT, 29.11.2021 – 05.12.2021, Eszterhazy Karoly Catholic University, Eger, Hungary, https://arc.info.uvt.ro/?page_id=587
- International Training in Coq, 21.03.2022 – 25.03.2022, Universite de Lorraine, Metz, France, https://arc.info.uvt.ro/?page_id=598
- International Symposium on Automated Reasoning in the Class, 18-19 July 2022, West University of

Timisoara, Romania, https://arc.info.uvt.ro/?page_id=616

- International Training in Robotics (I), 11-23 March 2024, SZTAKI Budapest, Eszterhazy Karoly Catholic University, Eger, Bay Zoltan Research Institute, Miskolc, Hungary
<https://airobo.info.uvt.ro/event/1st-training-in-robotics>
- International Training in Robotics (II), 17-29 June 2024, University of Macedonia, Thessaloniki, Greece, <https://airobo.info.uvt.ro/event/2nd-training-in-robotics>
- International Training in Verification of Robotic Hybrid Systems, 9-13 September 2024, RWTH Aachen University, Germany, <https://airobo.info.uvt.ro/event/training-in-verification-of-robotic-hybrid-systems>

Awards:

- "Mihail Ghermănescu" award for Mathematics and Computer Science, November 2020, GALA Premiilor Universității de Vest din Timișoara, Ediția VI - 2020

Keynote speaker:

- National Workshop on Student Centred Approach: A Case Study on Problem based Learning, 1
 - 1 December 2017, West University of Timișoara, Romania
 - 14 December 2017, West University of Timișoara, Romania
- International Training in Problem based Learning, 30.08.2021 – 03.09.2021, West University of Timisoara, Romania
- International Summer School on Computational Logic, 04.07.2022 – 08.07.2022, Johannes Kepler University, Linz, Austria
- International Symposium on Automated Reasoning in the Class, 18.07.2022 – 19.07.2022, West University of Timisoara

International stages within the Erasmus+ mobilities:

Teaching stages:

- Austria: Johannes Kepler University, Research Institute for Symbolic Computation
 - 28.03.2019 – 13.04.2019,
 - 20.10.2021 – 28.10.2021,
 - 14.11.2022 – 18.11.2022

Research stages:

- Spain: Politehnica University of Valencia
 - June 2019,
 - June 2022
- Greece: University of Macedonia, Thessaloniki
 - June 2023
- Austria: Johannes Kepler University, Linz
 - January 2024

Program Committee member

- PAS 2015 Fourth International Seminar on Program Verification, Automated Debugging and Symbolic Computation, Beijing, China, October 21-23, 2015
- Information Sciences, Elsevier Journal, (ISI core rank A): 2018 – present,
- Computational Science, Elsevier Journal, (core rank B): 2023 – present,
- CICM 2023, 2024 Conference on Intelligent Computer Mathematics

Managing editor 2012-2018:

- Annals of West University of Timișoara, Mathematics and Informatics Series
<http://www.math.uvt.ro/anmath/index.php/ami/about/editorialTeam>

Expert evaluator:

- Romanian: Stiintescu projects, 2nd edition, 2019, <https://timisoara.stiintescu.ro/>

Citations:

- On Google Scholar: h-index 8, around 219 citations
- On ISI Web of Knowledge: h-index 4, around 70 citations
- On Scopus: h-index 6, around 123 citations

- On ResearchGate: h-index 7, around 136 citations
- On Mendeley: h-index 6, around 123 citations

Courses:

- Online at <http://staff.fmi.uvt.ro/~isabela.dramnesc>
- A minicourse (in EN) <https://www.youtube.com/watch?v=MvniXrhtaHY>
- and (in RO) https://www.youtube.com/watch?time_continue=4&v=sc9bCWH8Tzl

ANNEX 1

Selected list of publications:

PhD Thesis:

I. Drămnesc, *Case Studies on Algorithm Synthesis and Theory Exploration in Theorema*, Faculty of Mathematics and Computer Science, West University of Timisoara, December 2012, Scientific advisor: Prof. Dr. Tudor Jebelean, Johannes Kepler University of Linz, Austria.

Books:

M. Marin, V. Negru, I. Drămnesc, *Principles and Practice of Functional Programming*, (in EN), Editura Universității de Vest, Timisoara, 2016, ISBN 978-973-125-451-7, <https://editura.uvt.ro/?p=1702>

I. Drămnesc et. al, *Computational Logic: A Practical Approach*, (in EN), Editura Universității de Vest, Timisoara 2022, ISBN 978-973-125-964-2

Journal articles:

- 1) I. Drămnesc, E. Abraham, T. Jebelean, G. Kusper, S. Stratulat, *Automated Reasoning in the Class*, Journal of Computer Algebra Rundbrief, Nr. 71, pp. 21-26, Oktober 2022 <https://fachgruppe-computeralgebra.de/data/CA-Rundbrief/car71.pdf#page=21>
- 2) I. Drămnesc and T. Jebelean, *Synthesis of Sorting Algorithms using Multisets in Theorema*, Journal of Logical and Algebraic Methods in Programming, Elsevier, vol. 119, 100635 (2021), <https://doi.org/10.1016/j.jlamp.2020.100635>
- 3) I. Drămnesc, T. Jebelean, S. Stratulat, *Mechanical Synthesis of Sorting Algorithms for Binary Trees by Logic and Combinatorial Techniques*, Journal of Symbolic Computation, Elsevier, vol. 90, 2019, pp. 3 – 41, <https://doi.org/10.1016/j.jsc.2018.04.002>
- 4) I. Drămnesc and T. Jebelean, *Synthesis of List Algorithms by Mechanical Proving*, Journal of Symbolic Computation, Elsevier, vol. 69, issue 1, 2015, pp. 61 – 92, <http://dx.doi.org/10.1016/j.jsc.2014.09.030>
- 5) I. Drămnesc and T. Jebelean, *Proof Based Synthesis of Algorithms: A Case Study on Monotone Lists*, Scientific Bulletin of The „Politehnica” University of Timișoara, Romania, Transactions on Automatic Control and Computer Science, vol. 60(74), issue 2, 2015, pp. 97 – 104, ISSN 1224-600X, [http://www.ac.upt.ro/journal/article.php?v=60\(74\)%20&%20vn=2%20&%20n=4](http://www.ac.upt.ro/journal/article.php?v=60(74)%20&%20vn=2%20&%20n=4)
- 6) I. Drămnesc and T. Jebelean, *Systematic Exploration of List Theory in Theorema*, Scientific Bulletin of The „Politehnica” University of Timișoara, Romania, Transactions on Automatic Control and Computer Science, vol. 57(71), issue 4, 2012, pp. 203 – 210, ISSN 1224-600X, [http://www.ac.upt.ro/journal/article.php?v=57\(71\)%20&%20vn=4%20&%20n=1](http://www.ac.upt.ro/journal/article.php?v=57(71)%20&%20vn=4%20&%20n=1)
- 7) I. Drămnesc and T. Jebelean, *A Case Study in Proof Based Synthesis of Sorting Algorithms*, Annals of West University of Timisoara, Series Mathematics - Informatics XLVIII/3, pp. 47-58, 2010, ISSN 1841-3293, <http://www.math.uvt.ro/anmath/index.php/ami/article/view/76>.

Articles in Conference Proceedings

- 1) I. Drămnesc, E. Abraham, T. Jebelean, N. Fachantidis, G. Kusper, S. Stratulat, *A European Project on AI-based Robotics*, In: Proceedings of TALE 2024: IEEE International Conference on Teaching, Assessment and Learning for Engineering, pp. 1-7, Bengaluru, India, December 9-12, 2024, IEEE Xplore, <https://doi.org/10.1109/TALE62452.2024.10834389>
- 2) T. Grumeza, T. Lazar, I. Drămnesc, G. Kusper, K. Papadopoulos, I. Lefkos, N. Fachantidis, *A Case Study in Generating 3D Maps with Collaborative Robots*, In: Proceedings of ICECCME 2024: 4th International Conference on Electrical, Computer, Communications and Mechatronics Engineering, pp. 1-8, Male, Maldives, November 4-6, 2024, IEEE, <https://doi.org/10.1109/ICECCME62383.2024.10796720>

- 3) I. Drămnesc, T. Jebelean, S. Stratulat, *Certification of Insert-Sort and Merge-Sort in Coq*, In: Proceedings of ICECCME 2024: 4th International Conference on Electrical, Computer, Communications and Mechatronics Engineering, pp. 1-6, Male, Maldives, November 4-6, 2024, IEEE, <https://doi.org/10.1109/ICECCME62383.2024.10796722>
- 4) T. Grumeza, T. Lazar, I. Drămnesc, G. Kusper, K. Papadopoulos, N. Fachantidis, I. Lefkos, *A Case Study in Building 2D Maps with Robots*, In: Proceedings of ICINCO 2024: 21st International Conference on Informatics in Control, Automation and Robotics, vol. 2, pp. 228-235, Porto, Portugal, November 2024, SCITEPRESS, <https://doi.org/10.5220/0013002200003822>
- 5) I. Drămnesc, T. Jebelean, S. Stratulat, *Certification of Sorting Algorithms Using Theorema and Coq*, In: Proceedings of SCSS 2024: 10th International Symposium on Symbolic Computation in Software Science, vol. 14991, pp. 38-56, August 28-30, 2024, Tokyo, Japan, Lecture Notes in Computer Science, Springer, https://doi.org/10.1007/978-3-031-69042-6_3
- 6) I. Drămnesc, T. Jebelean, S. Stratulat, *Certification of Tail Recursive Bubble-Sort in Theorema and Coq*, In: Proceedings of LPAR 2024: 25th Conference on Logic for Programming, Artificial Intelligence and Reasoning, Complementary Volume 2024, vol. 18, pp. 53-68, Port Luis, Mauritius, May 2024, Kalpa Publications in Computing, <https://doi.org/10.29007/spjs>
- 7) I. Drămnesc, T. Jebelean, *Mechanical Verification of Insert-Sort and Merge-Sort using Multisets in Theorema*, In: Proceedings of SISY 2023: the 21th IEEE International Symposium on Intelligent Systems and Informatics, pp. 55-60, September 21-23, 2023, Pola, Croatia, IEEE Xplore, <https://doi.org/10.1109/SISY60376.2023.10417933>
- 8) I. Drămnesc, E. Abraham, T. Jebelean, G. Kusper, S. Stratulat, *Experiments with Automated Reasoning in the Class* In: Proceedings of CICM 2022: 15th International Conference on Intelligent Computer Mathematics, pp. 287-304, September 2022, Tbilisi, Georgia, LNCS, Springer, https://doi.org/10.1007/978-3-031-16681-5_20
- 9) I. Drămnesc, E. Abraham, T. Jebelean, G. Kusper, S. Stratulat, *ARC: An Educational Project on Automated Reasoning in the Class* In Proceedings of EdMedia+ Innovate Learning 2022, pp. 934-043, June 2022, New York City, NY, United States of America, AACE, <https://www.learntechlib.org/primary/p/221395>
- 10) I. Drămnesc, T. Jebelean, *Automated Reasoning in the Class: An Educational Project for Software Engineers* In: Proceedings of INTED2022: 16th International Technology, Education and Development Conference, pp. 6224-6228, March 2022, Valencia, Spain, <https://doi.org/10.21125/inted.2022.1581>
- 11) I. Drămnesc, T. Jebelean, *AICons: Deductive Synthesis of Sorting Algorithms in Theorema* In: Proceedings of ICTAC 2021: 18th International Colloquium on Theoretical Aspects of Computing, pp. 314-333, September 2021, Nur-Sultan, Kazakhstan, https://doi.org/10.1007/978-3-030-85315-0_18
- 12) I. Drămnesc, T. Jebelean, *Synthesis of Merging Algorithms on Binary Trees using Multisets in Theorema* In: Proceedings of SACI 2021: 15th IEEE International Symposium on Applied Computational Intelligence and Informatics, pp. 497-502, May 2021, Timisoara, Romania, <https://doi.org/10.1109/SACI51354.2021.9465619>
- 13) I. Drămnesc, T. Jebelean, *Deductive Synthesis of Min-Max-Sort Using Multisets in Theorema* In: Proceedings of SACI 2020: 14th IEEE International Symposium on Applied Computational Intelligence and Informatics, pp. 165-172, May 2020, Timisoara, Romania, <https://doi.org/10.1109/SACI49304.2020.9118814>
- 14) I. Drămnesc, T. Jebelean, *Deductive Synthesis of Bubble-Sort Using Multisets* In: Proceedings of SAMI 2020: IEEE 18th World Symposium on Applied Machine Intelligence and Informatics, pp. 123-128, January 2020, Herl'any, Slovakia, <https://doi.org/10.1109/SAMI48414.2020.9108725>
- 15) I. Drămnesc, T. Jebelean, *Automatic Synthesis of Merging and Inserting Algorithms on Binary Trees Using Multisets in Theorema* In: Proceedings of MACIS 2019: 8th International Conference on Mathematical Aspects of Computer and Information Sciences, pp. 153-168, November 13-15, 2019, Gebze-Istanbul, Turkey, LNCS, Springer, https://doi.org/10.1007/978-3-030-43120-4_13
- 16) I. Drămnesc, T. Jebelean, *Proof-Based Synthesis of Sorting Algorithms using Multisets in Theorema*, In: Proceedings of FROM 2019: 3rd Symposium on Working Formal Methods, pp. 76-91, September 3-5, 2019, Timisoara, Romania, <https://arxiv.org/abs/1909.01747v1>
- 17) I. Drămnesc, T. Jebelean, *Case Studies on Algorithm Discovery from Proofs: The Delete Function on Lists and Binary Trees using Multisets*, In: Proceedings of SISY 2019: the 17th IEEE International Symposium on Intelligent Systems and Informatics, pp. 213-220, September 12-14, 2019, IEEE Xplore, <http://dx.doi.org/10.1109/SISY47553.2019.9111483>
- 18) I. Drămnesc, T. Jebelean, S. Stratulat, *A case study on algorithm discovery from proofs: The insert function on binary trees*, In: Proceedings of SACI 2016: 11th IEEE International Symposium on Applied Computational Intelligence and Informatics, pp. 231-236, May 12-14, 2016, Timisoara, Romania, <http://dx.doi.org/10.1109/SACI.2016.7507376>

- 19) I. Drămnesc, T. Jebelean, S. Stratulat, *Proof-based Synthesis of Sorting Algorithms for Trees*, In: Proceedings of LATA 2016: 10th International Conference on Language and Automata Theory and Applications, pp. 562-575, March 14-18, 2016, Prague, Czech Republic, Springer, http://dx.doi.org/10.1007/978-3-319-30000-9_43
- 20) I. Drămnesc, T. Jebelean, S. Stratulat, *Combinatorial Techniques for Proof-based Synthesis of Sorting Algorithms*, In: Proceedings of SYNASC 2015: the 17th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, pp. 137-144, 21-24 September 2015, IEEE Computer Society, <http://dx.doi.org/10.1109/SYNASC.2015.30>
- 21) I. Drămnesc, T. Jebelean, S. Stratulat, *Theory Exploration of Binary Trees*, In: Proceedings of SISY 2015: the 13th IEEE International Symposium on Intelligent Systems and Informatics, pp. 139-144, 17-19 September 2015, IEEE Xplore, <http://dx.doi.org/10.1109/SISY.2015.7325367>
- 22) I. Drămnesc, T. Jebelean, *A Case Study in Proof Based Synthesis of Algorithms on Monotone Lists*, In: Proceedings of SACI 2015: the 10th IEEE International Symposium on Applied Computational Intelligence and Informatics, pp. 483-488, 21-23 May 2015, IEEE Xplore, <http://dx.doi.org/10.1109/SACI.2015.7208252>
- 23) I. Drămnesc, T. Jebelean, *Theory Exploration of Sets Represented as Monotone Lists*, In: Proceedings of SISY 2014: the IEEE 12th Jubilee International Symposium on Intelligent Systems and Informatics, pp. 163-168, 11-13 September 2014, IEEE Xplore, <http://dx.doi.org/10.1109/SISY.2014.6923579>
- 24) I. Drămnesc, T. Jebelean, *Automated Synthesis of Some Algorithms on Finite Sets*, In: Proceedings of SYNASC 2012: the 14th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, D. Wang, V. Negru, T. Ida, T. Jebelean, D. Petcu, S. Watt and D. Zaharie (ed.), 26-29 September 2012, IEEE Computer Society, pp. 143 – 151, <http://dx.doi.org/10.1109/SYNASC.2012.43>
- 25) I. Drămnesc, T. Jebelean, *Discovery of Inductive Algorithms through Automated Reasoning: A Case Study on Sorting*, In: Proceedings of SISY 2012: the IEEE 10th Jubilee International Symposium on Intelligent Systems and Informatics, pp. 293-298, 20-22 September 2012, IEEE Xplore, <http://dx.doi.org/10.1109/SISY.2012.6339532>
- 26) I. Drămnesc, T. Jebelean, *Theory Exploration in Theorema: Case Study on Lists*, In: Proceedings of SACI 2012: the 7th IEEE International Symposium on Applied Computational Intelligence and Informatics, pp. 421-426, 24-26 May 2012, IEEE Xplore, <http://dx.doi.org/10.1109/SACI.2012.6250041>
- 27) I. Drămnesc, T. Jebelean, *Proof Techniques for Synthesis of Sorting Algorithms*, In: Proceedings of SYNASC 2011: the 13th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, D. Wang, V. Negru, T. Ida, T. Jebelean, D. Petcu, S. Watt and D. Zaharie (ed.), pp. 101-109, September 2011, IEEE Computer Society, <http://dx.doi.org/10.1109/SYNASC.2011.23>
- 28) I. Drămnesc, T. Jebelean, A. Crăciun, *A Case Study in Systematic Exploration of Tuple Theory*, Proceedings of SCSS 2010: Symbolic Computation in Software Science (Hagenberg, Austria), RISC Report Series, No 10-10, pp. 82-95, University of Linz, Austria, 29-30 July 2010, http://www.risc.jku.at/publications/download/risc_4191/Proceedings-SCSS-2010.pdf

International Technical Reports

- 1) I. Drămnesc, T. Jebelean, *Synthesis of Delete on Lists and Binary Trees Using Multisets in Theorema*, Technical report no. 20-15 in RISC Report Series, Research Institute for Symbolic Computation, University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, September 2020 http://www3.risc.jku.at/publications/download/risc_6206/20-15.pdf
- 2) I. Drămnesc, T. Jebelean, *Implementation of Deletion Algorithms on Lists and Binary Trees in Theorema*, Technical report no. 20-04 in RISC Report Series, Research Institute for Symbolic Computation, University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, April 2020 http://www3.risc.jku.at/publications/download/risc_6094/DeletionAlgorithms-Tma-report.pdf
- 3) I. Drămnesc, T. Jebelean, S. Stratulat, *Synthesis of Some Algorithms for Trees: Experiments in Theorema*, Technical report no. 15-04 in RISC Report Series, Research Institute for Symbolic Computation, University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, 2015 http://www3.risc.jku.at/publications/download/risc_5147/ISA-TR6-2015.pdf
- 4) I. Drămnesc, T. Jebelean, *Systematic Exploration of the Theory of Lists in Theorema*, Technical report no. 12-02 in RISC Report Series, Research Institute for Symbolic Computation (RISC), University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, January 2012 http://www3.risc.jku.at/publications/download/risc_4411/ISA-TR5.pdf
- 5) I. Drămnesc, T. Jebelean, *Semi-automatic Synthesis of Some Sorting Programs in Theorema*, Technical report no. 12-01 in RISC Report Series, Research Institute for Symbolic Computation (RISC), University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, January 2012 https://www3.risc.jku.at/publications/download/risc_4410/12-01-ISA-TR4-2012.pdf

- 6) I. Drămnesc, T. Jebelean, *Automated Reasoning on Tuples - Case Studies in Proof Based Synthesis*, Technical report no. 11-08 in RISC Report Series, Research Institute for Symbolic Computation (RISC), University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, July 2011 https://www3.risc.jku.at/publications/download/risc_4365/ISA-TR3-2011.pdf
- 7) I. Drămnesc, T. Jebelean, *Proof Based Synthesis of Sorting Algorithms*, RISC Report Series, No 10-17 in RISC Report Series, Research Institute for Symbolic Computation (RISC), University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, July, 2010 https://www3.risc.jku.at/publications/download/risc_4050/TechnicalReport10-17.pdf
- 8) I. Drămnesc, T. Jebelean, A. Crăciun, *Case Studies in Systematic Exploration of Tuple Theory*, Technical report no. 10-09 in RISC Report Series, Research Institute for Symbolic Computation (RISC), University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, May 2010 https://www3.risc.jku.at/publications/download/risc_4021/TechnicalReportIsabelaDramnesc.pdf.

Declarație

Subsemnata, Isabela DRĂMNESC, conferențiar universitar doctor la Departamentul de Științe Computaționale și Inteligență Artificială, Facultatea de Informatică al Universității de Vest din Timișoara, declar pe proprie răspundere că nu am fost nici lucrător și nici colaborator al securității.

Timișoara,

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14.07.2025



