

PERSONAL INFORMATION

Monica Sancira



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 monique\_tirea (Skype)

Sex Female | Date of birth 07/05/1986 | Nationality Romanian

WORK EXPERIENCE

1.10.2017 – Present

**Lecturer**

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

Blvd. V. Parvan 4, Timisoara, Timis, 300223, Romania

Tel: +40-(0)256-592111 Fax: +40-(0)256-592310 Website: [www.uvt.ro](http://www.uvt.ro)

- Algorithms and Data Structures II (Laboratory)
- Advanced Data Structures (Lecture + Laboratory)
- Graph Theory and Combinatorics (Laboratory + Seminar)
- Artificial Intelligence (Laboratory)
- Programming III (Laboratory)
- Databases II (Lecture + Laboratory)

Business or sector Education

1.10.2012 – 30.09.2017

**Associate Assistant**

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

Blvd. V. Parvan 4, Timisoara, Timis, 300223, Romania

Tel: +40-(0)256-592111 Fax: +40-(0)256-592310 Website: [www.uvt.ro](http://www.uvt.ro)

- Basics of Computer Science (Laboratory + Seminar)
- Formal Languages (Laboratory + Seminar)
- Graph Theory and Combinatorics (Laboratory + Seminar)
- Data Structures(Laboratory)
- Artificial Intelligence (Laboratory)

Business or sector Education

16.01.2009 – 01.07.2009

**Assistant Manager**

Romanian-Swiss Multimedia Institute

Blvd. Republicii, 9, Timisoara, Timis, cod postal 300159, Romania

Tel.: +40 730 00 22 93 E-mail: [office\\_tm@iim.ro](mailto:office_tm@iim.ro) Website: [www.iim.ro](http://www.iim.ro)

- Marketing
- Management
- Trainer
- Courses Organizer

Business or sector Education and Training

05.05.2008 – 22.09.2008

**Trainer**

Romanian-Swiss Multimedia Institute

Future Alley 22, Deva, Hunedoara, 330075, Romania

Tel.: +40 771 60 77 30 Fax: +40 254 20 62 10 E-mail:office@iim.ro Website:www.iim.ro

- Trainer in Phare Projects
  - Courses Organizer
- Business or sector** Education and Training

## EDUCATION AND TRAINING

04.2014 – 12.2015

**PostDoc in Computer Science**

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

Department, Romania

- Artificial Intelligence
- Neural and Evolutionary Computing
- Financial Analysis ( Technical, Fundamental, Behaviour and Risk Analysis)

**Project Title : Intelligent System for Stock Market Forecasting**

10.2010 - 10.2013

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

- Artificial Intelligence
- Neural and Evolutionary Computing
- Financial Analysis ( Technical, Fundamental, Behaviour and Risk Analysis)

**PhD Thesis: Recommendation System based on Multi-Agent Models for Stock Market Trading**

10.2008 - 06.2010

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

- Artificial Intelligence
- Distributed Systems
- Neural and Evolutionary Computing
- Automated Theorem Proving

Master : Artificial Intelligence and Distributed Computing

10.2008 - 06.2010

**Master in Economy**West University of Timisoara, Faculty of Economics and Business Administration, Economical  
Informatics Department, Romania

- Multidimensional analysis of financial-banking data (OLAP)
- Stock Market
- Design and Analysis of Financial-Banking Information Systems
- Security of Financial-Banking Systems

Master: Financial – Banking Information Systems

10.2005 - 06.2008

**Bachelor Degree in Computer Science**West University of Timisoara, Faculty of Mathematics and Computer Science, Computer Science  
Department, Romania

- Artificial Intelligence
  - Programming (C, C++, Java)
  - Logical and Functional Programming
  - Algorithmic
- Bachelor: Computer Science in English

10.2005 - 06.2009 **Pedagogical Diploma (Module I and II)**  
 West University of Timisoara, Department of Teacher Training , Romania

- Pedagogy
- Pedagogical Practice
- Sociology
- Classroom Management
- Design and management of educational programs

01.2009 - 07.2009 **Web Designer (40 credits ETCS)**  
 Haute Ecole Arc in collaboration with Romanian-Swiss Multimedia Institute, Swiss – Romania

- Photoshop
- Flash
- HTML
- CSS

01.2009 - 07.2009 **Web Programmer (40 credits ECTS)**  
 Haute Ecole Arc in collaboration with Romanian-Swiss Multimedia Institute, Swiss - Romania

- PHP
- MySql
- Javascript
- Flash

**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	B2	B2	B2	B2	B2
Spanish	C1	C1	C1	C1	B2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
 Common European Framework of Reference for Languages

Communication skills ▪ good communication skills gained through my experience as trainer at Romanian-Swiss Multimedia Institute and associate assistant at West University of Timisoara

Organisational / managerial skills ▪ good organisational and managerial skills gained through my experience as assistant manager at Romanian-Swiss Multimedia Institute

- Job-related skills**
- good knowledge of web designing and web programming gained through my experience as a student at Romanian-Swiss Multimedia Institute
  - good knowledge of formal languages gained through my experience as an associate assistant at West University of Timisoara
  - good knowledge of Java and Oracle administration gained through my experience as an associate assistant at West University of Timisoara
  - good knowledge of graph theory and combinatorics gained through my experience as an associate assistant at West University of Timisoara
  - excellent knowledge in forecasting the market behaviour gained through my experience as Phd student at West University of Timisoara
- Computer skills**
- Experience with
    - Eclipse, NetBeans
    - Maple, Mathematica
    - Jade, Jess
    - GNU-Prolog, SWI-Prolog
    - CLisp
  - Knowledge of:
    - ORACLE, MySQL
    - C, C++, Java
    - HTML, CSS, PHP, Javascript, Flash, XML
    - Expert Systems, Multi-Agent Systems, Text Mining, Technical, Fundamental, Behaviour and Risk Analysis

ADDITIONAL INFORMATION

- Publications
- Presentations
- Projects
- Conferences
- Seminars
- Honours and awards
- Memberships
- References

The following list contains the academic papers I have (co)authored.

- Conference papers:
  1. Monica Tirea, Ioan Tandau, Viorel Negru. Multi-agent Stock Trading Algorithm Model. In Dongming Wang, Viorel Negru, Tetsuo Ida, Tudor Jebelean, Dana Petcu, Stephen M. Watt, and Daniela Zaharie, editors, 13th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, SYNASC 2011, IEEE Computer Society, pages 365-372, Timisoara, Romania, September 26-29, 2011. (ISI Proceedings, Rank C)
  2. Monica Tirea, Ioan Tandau, Viorel Negru. Multi-Agent Stock Trading Algorithm - A Neural Network Approach. In Manuel Graña, Carlos Toro, Jorge Posada, Robert J. Howlett, and Lakhmi C. Jain, editors, Advances in Knowledge-Based and Intelligent Information and Engineering Systems - 16th Annual KES Conference, KES 2012, Frontiers in Artificial Intelligence and Applications, IOS Press, pages 706-715, San Sebastian, Spain, September 10-12, 2012. (ISI Proceedings, Rank B)
  3. Monica Tirea, Ioan Tandau, Viorel Negru. Stock Market Multi-Agent Recommendation System Based on the Elliott Wave Principle. In Gerald Quirchmayr, Josef Basl, Ilun You, Lida Xu, and Edgar Weippl, editors, Multidisciplinary Research and Practice for Information Systems - IFIP WG 8.4, 8.9/TC 5 International Cross-Domain Conference and Workshop on Availability, Reliability, and Security, CD-ARES 2012, Lecture Notes in Computer Science, Volume 7465, Springer, Prague, Czech Republic, August 20-24, 2012. (BDI Proceedings, LNCS, Rank C)
  4. Iuhasz Gabriel, Monica Tirea, Viorel Negru. Neural Network Predictions of Stock Price Fluctuations. In Dongming Wang, Viorel Negru, Tetsuo Ida, Tudor Jebelean, Dana Petcu, Stephen M. Watt, and Daniela Zaharie, editors, 14th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, SYNASC 2012, IEEE Computer Society, pages 505-512, Timisoara, Romania, September 26-29, 2012. (ISI Proceedings, Rank C)
  5. Monica Tirea, Viorel Negru. Stock Market Analysis – Strongest Performing Stocks Influence on an Evolutionary Market. In Vesna Luzar-Stiffler, and Iva Jarec, editors, 35th International Conference on Information Technology Interfaces, ITI 2013, IEEE Computer Society, pages 263-270, Cavtat/Dubrovnik, Croatia, June 24-27, 2013. (ISI Proceedings, Rank C) (Best Student Paper Award)

- Publications
- Presentations
- Projects
- Conferences
- Seminars
- Honours and awards
- Memberships
- References

The following list contains the academic papers I have (co)authored.

- Conference papers:
  6. Monica Tirea, Viorel Negru. Classifying and Quantifying Certain Phenomena Effect on a Stock Market Portfolio. In IEEE 11th International Symposium on Intelligent Systems and Informatics, SISY 2013, IEEE Computer Society, pages 363-368, Subotica, Serbia, September 26-28, 2013.(ISI Proceedings, Rank C)
  7. Monica Tirea, Viorel Negru. Investment Portfolio Optimization based on Risk and Trust Management. In IEEE 11th International Symposium on Intelligent Systems and Informatics, SISY 2013, IEEE Computer Society, pages 369-374, Subotica, Serbia, September 26-28, 2013. (ISI Proceedings, Rank C)
  8. Monica Tirea, and Viorel Negru. Managing Risk Behavior on an Evolutionary Market A Risk Limits and Value-at-Risk Measures Approach. In 15th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, SYNASC 2013, IEEE Computer Society, pages 543-550, Timisoara, Romania, September 23-26, 2013.(ISI Proceedings, Rank C)
  9. Monica Tirea, and Viorel Negru. Traders Behavior Effect on Stock Price Evolution. In 15th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, SYNASC 2013, IEEE Computer Society, pages 273-280, Timisoara, Romania, September 23-26, 2013.(ISI Proceedings, Rank C)
  10. Monica Tirea, and Viorel Negru. Intelligent Stock Market Analysis System - A Fundamental and Macro-economical Analysis Approach. In 16th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, SYNASC 2014, IEEE Computer Society, pages 519-526, Timisoara, Romania, September 22-25, 2014.(ISI Proceedings, Rank C)
  11. Monica Tirea, and Viorel Negru. Text Mining News System - Quantifying Certain Phenomena Effect on the Stock Market Behavior. In 17th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, SYNASC 2015, IEEE Computer Society, pages 391-398, Timisoara, Romania, September 21-24, 2015.(ISI Proceedings, Rank C)
  12. Monica Tirea, and Viorel Negru. Stock Market Trading Strategies Applying Risk and Decision Analysis Models for Detecting Financial Turbulence. In 17th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, SYNASC 2015, IEEE Computer Society, pages 216-223, Timisoara, Romania, September 21-24, 2015.(ISI Proceedings, Rank C)
  13. Monica Tirea, and Viorel Negru. Behavioral Trading System - Detecting Crisis, Risk and Stability in Financial Markets. In 18th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, SYNASC 2016, IEEE Computer Society, pages 279-286, Timisoara, Romania, September 24-27, 2016.(ISI Proceedings, Rank C)
- Participation:
  1. Doctoral Students Session, 14-16 June 2012
  2. Evolutionary Computing in Organization and Data Mining Summer School, 18-23 June 2012
  3. AI-MAS Winter Olympics, 23 February 2013
  4. Research Stage at Artificial Intelligence Research Institute of the Spanish Research Council(III A-CSIC), Cerdanyola, Catalonia, Spain, Period: 19 July -31 August 2015
  5. 2nd International Winter School on Big Data, Bilbao, Spain, 8-12 February 2016
  6. International Summer School on Web Science and Technology, Bilbao, Spain, 18-22 July 2016
  7. Organizing Committee Chair – 19th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, September 21-24, 2017, Timisoara, Romania
  8. Co-Chair - 4<sup>th</sup> International Winter School on Big Data, Timisoara, Romania, 22-26 January 2018