# **Ovidiu-Andrei SCHIPOR**



## **Current Position**

**Professor of Computer Science** 

### Contact

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## Research Profiles

ACM
Research Gate
DBLP
ORCID
Google Scholar

## Personal

Married (2002) Two children (2006, 2008) As a *Computer Science* Professor at "Ştefan cel Mare" University of Suceava, Romania, my work focuses on Human-Computer Interaction and Assistive Technologies within the *Machine Intelligence and Information Visualization Research Lab*. I also lead the *Cloud-USV Center*, enhancing our university's computational resources to support scientific research. As the *Head of the Computer Science Department*, I prioritize building a cooperative and forward-thinking environment.

## Academic Experience

#### Professor of Computer Science, since 2024

Faculty of Electrical Engineering and Computer Science "Ştefan cel Mare" University of Suceava, Romania Teaching: Web Technologies, Cloud Technologies

### Head of the Computer Science Department, since 2022

Faculty of Electrical Engineering and Computer Science

#### Director of Cloud-USV Center, since 2022

"Ştefan cel Mare" University of Suceava, Romania

#### Associate Professor in Computer Science, 2017 - 2024

Faculty of Electrical Engineering and Computer Science "Ştefan cel Mare" University of Suceava, Romania Teaching: Web Technologies, Cloud Technologies Research: Assistive Technologies

### Assistant Prof. & Lecturer in Computer Science, 2009 - 2017

Faculty of Electrical Engineering and Computer Science "Ştefan cel Mare" University of Suceava, Romania Teaching: Data Structures, Programming Languages

#### **Invited positions**

Beihang University, Beijing, China - one week in Oct. 2019, Aug. 2017 Technical University of Vienna, Austria – one week in Nov. 2015

## Education

### Habilitation in Computer Science, from 2023

"Ştefan cel Mare" University of Suceava, Romania
Designing for Accessibility in Human-Computer Interaction

#### Post-Doctoral Scholarship, 2010 – 2013

"Ştefan cel Mare" University of Suceava, Romania Improving Computer Based Speech Therapy Systems by Adding Emotional Capabilities

### Ph.D. in Computer Science, from 2009

"Ştefan cel Mare" University of Suceava, Romania Contribution to the Development of Computer Based Speech Therapy System Advisor: Prof. Ştefan-Gheorghe Pentiuc

#### Engineer Diploma in Computer Science, 1998 - 2003

Undergraduate dissertation title: *USV Timetable Management System*Faculty of Electrical Engineering and Computer Science
"Ştefan cel Mare" University of Suceava, Romania

## Research Projects

#### 1. MERITT - Health and Active Aging through Serious Games and Artificial Intelligence

Funded by UEFISCDI, Romania (PN3-P2-1177/30.06.2022, 97PTE/2022)

Principal Investigator together with Dorin Stanciu (IT Center for Science and Technology, Bucharest), 2022 – 2024

#### 2. Cloud USV

Funded by European Fund Regional Development (POC, SMIS 2014+ 124530)

https://usv.ro/centru-interdisciplinar-cdi-de-tip-cloud-si-infrastructura-masiva-de-date-la-universitatea-stefan-cel-mare-din-suceava/

Coordinator, 2021 - 2023

#### 3. Sensorimotor Realities

Funded by UEFISCDI, Romania (PN-III-P4-ID-PCE-2020-0434; PCE29/2021)

http://www.eed.usv.ro/mintviz/projects/SensorimotorRealities

Researcher, 2021 - 2023

### 4. WearSkill: Motor-Streamlined Interactions with Smart Wearables

Funded by UEFISCDI, Romania (PN-III-P2-2.1-PED-2019-0352, 276PED/2020)

http://www.eed.usv.ro/mintviz/projects/WearSkill

Researcher, 2020 - 2022

#### 5. Sensory Augmentation for Low-Vision Conditions using Smart Wearables

Funded by UEFISCDI, Romania (PN-III-P1-1.1-TE-2016-2173, TE141/2018)

http://www.eed.usv.ro/mintviz/projects/Senses++

Researcher, 2018 - 2020

### 6. Efficient Communications based on Smart Devices for In-Car Augmented Reality Interactive Applications

Funded by UEFISCDI, Romania (PN-III-P1-1.2-PCCDI-2017-0917, 21PCCDI/2018)

http://carsafe.cerva.ro/en

Researcher, 2018 - 2020

#### 7. New Interaction Techniques for Smart Environments at the Periphery of User Attention

Funded by UEFISCDI, Romania (PN-III-P3-3.1-PM-RO-CN-2018-0032, 3BM/2018) & Ministry of Science and Technology, China

http://www.eed.usv.ro/mintviz/projects/PeriphInt

Researcher, 2018 - 2019

### 8. MotorSkill: Effective Gesture Interactions with Touch Surfaces for Motor Impairment Conditions

Funded by UEFISCDI, Romania (PN-III-P2-2.1-PED-2016-0688, 209PED/2017)

http://www.eed.usv.ro/mintviz/projects/MotorSkill

Researcher, 2017 - 2018

#### 9. Interaction Techniques with Massive Data Clouds in Smart Environments

Funded by UEFISCDI, Romania (PNIII-P3, 47BM/16) & Ministry of Science and Technology, China

http://www.eed.usv.ro/mintviz/projects/InteractCloud

Researcher, 2016 - 2017

#### 10. Mobility pattern assistant for elderly people

Funded by UEFISCDI, Romania (PN-II-PT-PCCA-2013-4-22410, 315/2014)

http://aimas.cs.pub.ro/mobile-old/

Principal Investigator together with Irina Mocanu (Politehnica University Bucharest), 2014 - 2017

### 11. Multimodal Feedback for Supporting Gesture Interaction in Smart Environments

Funded by UEFISCDI, Romania & OeAD, Austria (PNII, 740/2014)

http://www.eed.usv.ro/mintviz/projects/LifeStage

Researcher, 2014 - 2015

### 12. Improving Computer Based Speech Therapy Systems by Adding Affective Capabilities

Funded by European Union (POSDRU/89/1.5/S/57083)

http://www.usv.ro/pride/

Post-Doctoral Scholarship, 2010 - 2013

#### 13. Personalized therapy of dyslalia affecting pre scholars

Funded by UEFISCDI, Romania (56-CEEX II03/2006)

http://www.eed.usv.ro/mintviz/projects/LifeStage

Researcher, 2007 - 2009

### Articles in Journals

1. Pamparău, C., Schipor, O. A., Dancu, A., & Vatavu, R. D. (2023). SAPIENS in XR: operationalizing interactionattention in extended reality. Virtual Reality, 1-17.

IF=4.20, Q1

2. Schipor, O. A., & Vatavu, R. D. (2023). GearWheels: A Software Tool to Support User Experiments on Gesture Input with Wearable Devices. International Journal of Human–Computer Interaction, 39(18), 3527-3545.

IF=4.70, Q1

3. Vatavu, R. D., Rusu, P. P., Schipor, O.A. & Schipor, M. D. (2021). Preferences of people with visual impairments for augmented and mediated vision: A vignette experiment. Multimedia Tools and Applications

IF=2.757, Q2

4. Schipor, O.A., Vatavu, R. D. (2021). Empirical Results for High-definition Video and Augmented Reality Content Delivery in Hyper-connected Cars. Interacting with Computers.

IF=1.036

5. Popovici, I., Schipor, O. A., & Vatavu, R. D. (2019). Hover: Exploring cognitive maps and mid-air pointing for television control. International Journal of Human-Computer Studies, 129, 95-107.

IF=2.006, Q2

6. Schipor, O. A., Vatavu, R. D., & Vanderdonckt, J. (2019). Euphoria: A Scalable, event-driven architecture for designing interactions across heterogeneous devices in smart environments. Information and Software Technology, 109, 43-59.

IF=2.921, Q1

7. Schipor, O. A., & Vatavu, R. D. (2018). Invisible, inaudible, and impalpable: users' preferences and memory performance for digital content in thin air. IEEE Pervasive Computing, 17(4), 76-85.

IF=3.813, Q1

8. Mocanu, I., Schpor, O. A., Cramariuc, B., & Rusu, L. (2017). Mobile@ Old: A Smart Home Platform for Enhancing the Elderly Mobility. Adv. in Electrical and Computer Engineering, 17(4), 19-27.

IF=0.650

9. Schipor, O. A., Wu, W., Tsai, W. T., & Vatavu, R. D. (2017). Software architecture design for spatially-indexed media in smart environments. Advances in Electrical and Computer Engineering, 17(2), 17-23.

10. Schipor, O. A., Pentiuc, S. G., & Schipor, M. D. (2012). Automatic assessment of pronunciation quality of children within assisted speech therapy. Engineering, Electrical & Electronic, 122(6), 15-18.

IF=0.684

11. Schipor, O. A., Pentiuc, S. G., & Schipor, M. D. (2012). Toward Automatic Recognition of Children's Affective State Using Physiological Parameters and Fuzzy Model of Emotions. Advances in Electrical and Computer Engineering, 12(2), 47-50.

IF=0.650

12. Schipor, O. A., Pentiuc, S. G., & Schipor, M. D. (2011). The utilization of feedback and emotion recognition in computer based speech therapy system. Engineering, Electrical & Electronic, 109(3), 101-104.

IF=0.684

13. Danubianu, M., Pentiuc, S. G., Schipor, O. A., & Tobolcea, I. (2010). Advanced Information Technology-support of improved personalized therapy of speech disorders. International Journal of Computers Communications & Control, 5(5), 684-692.

IF=1.585

14. Pentiuc, S. G., Tobolcea, I., Schipor, O. A., Danubianu, M., & Schipor, D. M. (2010). Translation of the speech therapy programs in the Logomon assisted therapy system. Advances in Electrical and Computer Engineering, 10(2), 48-52.

IF=0.650

15. Schipor, M. D., Pentiuc, S. G., & Schipor, O. A. (2010). End-User Recommendations on LOGOMON-a Computer Based Speech Therapy System for Romanian Language. Advances in Electrical and Computer Engineering, 10(4), 57-60.

IF=0.650

16. Schipor, O. A., Pentiuc, S. G., & Schipor, M. D. (2012). Improving computer based speech therapy using a fuzzy expert system. Computing and Informatics, 29(2), 303-318.

17. Pentiuc, S. G., Schipor, O. A., Danubianu, M., Schipor, M. D., & Tobolcea, I. (2010). Speech Therapy Programs for a Computer Aided Therapy System. Engineering, Electrical & Electronic, 103(7), 87-90. IF=0.684

## Papers in Conferences

- 1. Vatavu, RD., Schipor, OA. (2022). Formalizing Digital Proprioception for Devices, Environments, and Users. In: Novais, P., Carneiro, J., Chamoso, P. (eds) Ambient Intelligence Software and Applications 12th International Symposium on Ambient Intelligence. ISAmI 2021. Lecture Notes in Networks and Systems, vol 483. (Springer)
- 2. Schipor, O. A., Bilius, L. B., Ungurean, O. C., Şiean, A. I., Andrei, A. T., & Vatavu, R. D. (2022, April). Personalized wearable interactions with WearSkill. In Proceedings of the 19th International Web for All Conference (pp. 1-2).
- 3. Schipor, O. A., Bilius, L. B., & Vatavu, R. D. (2022, April). WearSkill: personalized and interchangeable input with wearables for users with motor impairments. In Proceedings of the 19th International Web for All Conference (pp. 1-5).
- 4. Schipor, O. A., & Vatavu, R. D. (2021, May). Software Architecture Based on Web Standards for Gesture Input with Smartwatches and Smartglasses. In 20th International Conference on Mobile and Ubiquitous Multimedia (pp. 186-188).
- 5. Aiordăchioae, A., Schipor, O. A., & Vatavu, R. D. (2020, May). An Inventory of Voice Input Commands for Users with Visual Impairments and Assistive Smartglasses Applications. In 2020 International Conference on Development and Application Systems (DAS) (pp. 146-150). IEEE.
- 6. Schipor, O. A., & Aiordăchioae, A. (2020, May). Engineering Details of a Smartglasses Application for Users with Visual Impairments. In 2020 International Conference on Development and Application Systems (DAS) (pp. 157-161). IEEE.
- 7. Schipor, O. A., Vatavu, R. D., & Wu, W. (2019, October). Integrating Peripheral Interaction Into Augmented Reality Applications. In 2019 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR-Adjunct) (pp. 358-359). IEEE.
- 8. Schipor, O. A., & Vatavu, R. D. (2019). Towards Interactions with Augmented Reality Systems in Hyper-Connected Cars. HCI Engineering Methods and Tools for Advanced Interactive Systems and Integration of Multiple Stakeholder Viewpoints, Valencia, Spain, June 18, 2019.
- 9. Schipor, O. A., Vatavu, R. D., & Wu, W. (2019). Sapiens: Towards software architecture to support peripheral interaction in smart environments. Proceedings of the ACM on Human-Computer Interaction, 3(EICS), 1-24.
- 10. Gherman, O., Schipor, O., & Gheran, B. F. (2018, May). VErGE: A system for collecting voice, eye gaze, gesture, and EEG data for experimental studies. In 2018 International Conference on Development and Application Systems (DAS) (pp. 150-155). IEEE.
- 11. Mocanu, I., & Schipor, O. A. (2017). A serious game for improving elderly mobility based on user emotional state. In The International Scientific Conference eLearning and Software for Education (Vol. 2, p. 487). "Carol I" National Defence University.
- 12. Schipor, O. A., & Mocanu, I. (2016). Making E-Mobility Suitable for Elderly. In The International Scientific Conference eLearning and Software for Education (Vol. 1, p. 283). "Carol I" National Defence University.
- 13. Schipor, M. D., & Schipor, O. A. (2015). Building E-PET Could Emotions Personal Trainer Become a Reality?. In The International Scientific Conference eLearning and Software for Education (Vol. 1, p. 581). "Carol I" National Defence University.
- 14. Schipor, O. A. (2014). Improving computer assisted speech therapy through speech-based emotion recognition. In Conference proceedings of Pelearning and Software for Education «(eLSE) (No. 01, pp. 101-104). "Carol I" National Defence University Publishing House.
- 15. Schipor, O. A., Pentiuc, S. G., & Schipor, M. D. (2011, May). Towards a multimodal emotion recognition framework to be integrated in a Computer Based Speech Therapy System. In 2011 6th Conference on Speech Technology and Human-Computer Dialogue (SpeD) (pp. 1-6). IEEE.
- Schipor, O. A., Schipor, D. M., & Crîşmariu, E. (2013). Measuring similarities between external and self emotion evaluation in the case of assisted speech therapy of children. Procedia-Social and Behavioral Sciences, 84, 754-758.

- 17. Schipor, O. A., Pentiuc, S. G., & Schipor, M. D. (2011). Using a Fuzzy Emotion Model in Computer Assisted Speech Therapy. In Third International Conference on Software, Services and Semantic Technologies S3T 2011 (pp. 189-193). Springer, Berlin, Heidelberg.
- 18. Schipor, O. A., & Schipor, M. D. (2009). The Attitude of the Education Community on the Computer Base Speech Therapy Systems. In Proceedings of Educational Sciences—Dynamic and Perspectives Conference (pp. 330-336).
- 19. Schipor, O., Giza, F., Pentiuc, S., Belciug, C., & Nestor, T. (2009). Software package with exercises for therapy of children with dyslalia. Optoelectronic information and energy tech., (1), 17.
- 20. Pentiuc, S., Schipor, O., Danubianu, M., & Schipor, M. (2008). Automatic Recognition of Dyslalia Affecting Pre-Scholars. Ecumict-2008, Gent, Belgium, ISSB, 317-326.
- 21. Schipor, O. A., Pentiuc, S. G., Schipor, M. D. (2008), Knowledge Base of an Expert System Used for Dyslalic Children Therapy, In 2018 Int. Conference on Development and Application Systems (DAS), pp. 305-308.

## **Books and Chapters**

- 1. Fundamentals of Front-End Web Development. A Study Guide, "Stefan cel Mare" University of Suceava Press, 2022, Schipor Ovidiu-Andrei
- 2. Pentiuc, S.G., Schipor, O.A. (2021). Structuri de date și algoritmi. Ghid de lucrări practice, Editura Universității Ștefan cel Mare din Suceava
- 3. Schipor, O., Geman, O., Chiuchisan, I., & Covasa, M. (2016). From fuzzy expert system to artificial neural network: Application to assisted speech therapy. Artificial Neural Networks: Models and Applications.
- 4. Schipor, O., Gîză-Belciug, F. (2014). Sisteme Expert Fuzzy teorie și aplicații în domeniul terapiei asistate a tulburărilor de pronunție, MatrixROM, ISBN 978-606-25-0078-8.
- 5. Gîză-Belciug, F., Turcu, C., Pentiuc, S. G., Schipor, O. A. (2014). Interoperabilitatea sistemelor distribuite, aplicații și studii de caz privind tehnicile de interoperabilitate a sistemelor distribuite, MatrixROM, ISBN 978-606-25-0100-6.
- 6. Schipor, O. A., Pentiuc, S. G., Gîză-Belciug, F. (2014). Limbajul C, Tehnici de programare eficientă, MatrixROM, ISBN 978-606-25-0094-8.

## **Awards**

#### 1. Judges Award

Schipor, O. A., Bilius, L. B., Ungurean, O. C., Şiean, A. I., Andrei, A. T., & Vatavu, R. D. (2022, April). Personalized wearable interactions with WearSkill. In Proceedings of the 19th International Web for All Conference (pp. 1-2).

#### 2. Delegates Award

Schipor, O. A., Bilius, L. B., Ungurean, O. C., Şiean, A. I., Andrei, A. T., & Vatavu, R. D. (2022, April). Personalized wearable interactions with WearSkill. In Proceedings of the 19th International Web for All Conference (pp. 1-2).