Alexandru-Ionuț ŞIEAN

COMPUTER SCIENCE · SOFTWARE ENGINEER

Ştefan cel Mare University of Suceava, Faculty of Electrical Engineering and Computer Science

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Education

Ştefan cel Mare University of Suceava

PH.D STUDENT IN COMPUTER SCIENCE
- Advisor: prof. Radu-Daniel VATAVU
- *Title: Design, implementation and evaluation of human-drone interactions*

Faculty of Electrical Engineering and Computer Science
2019 - present

Ştefan cel Mare University of Suceava

MASTER'S DEGREE - **MASTER ENGINEER DIPLOMA IN COMPUTER SCIENCE**
- Advisor: lect. Marius-Cristian CERLINCĂ

Faculty of Electrical Engineering and Computer Science
2017 - 2019

Ştefan cel Mare University of Suceava

BACHELOR'S DEGREE - **ENGINEER DIPLOMA IN COMPUTER SCIENCE**
- Advisor: prof. Ştefan-Gheorghe PENTIUC & lect. Marius-Cristian CERLINCĂ

Faculty of Electrical Engineering and Computer Science
2013 - 2017

Ştefan cel Mare University of Suceava
CERTIFICATE DEGREE - **CERTIFICATE OF GRADUATION FROM THE PSYCHO-PEDAGOGICAL TRAINING PROGRAM – LEVEL II**

Faculty of Education Sciences
2021 - 2022

Ştefan cel Mare University of Suceava
CERTIFICATE DEGREE - **CERTIFICATE OF GRADUATION FROM THE PSYCHO-PEDAGOGICAL TRAINING PROGRAM – LEVEL I**

Faculty of Education Sciences
2020 - 2021

Professional Experience

2019 - present **University Assistant in Computer Science**, Ştefan cel Mare University of Suceava, Faculty of Electrical Engineering and Computer Science, Computer Science Department `https://usv.ro/`

2017-2020 **Digital Verification Engineer**, Graphics Department - Advanced Micro Devices `https://www.amd.com/`

Publications

PUBLISHED

Science Researcher Profile Semantic **Scholar** - Alexandru-Ionuț Şiean

Alexandru-Ionuț Şiean, Cristian Pamparău, Arthur Sluÿters, Radu-Daniel Vatavu, Jean Vanderdonckt. (2023). Flexible Gesture Input with Radars: Systematic Literature Review and Taxonomy of Radar Sensing Integration in Ambient Intelligence Environments. *In Journal of Ambient Intelligence and Humanized Computing.* `https://link.springer.com/article/10.1007/s12652-023-04606-9`

Alexandru-Ionuț Şiean, Cristian Pamparău, Radu-Daniel Vatavu. (2022). Scenario-based Exploration of Integrating Radar Sensing into Everyday Objects for Free-Hand Television Control. *In Proceedings of IMX '22, the ACM International Conference on Interactive Media Experiences (Aveiro, JB, Portugal). ACM, New York, NY, USA, 6 pages.* `https://doi.org/10.1145/3505284.3532982`

Alexandru-Ionut ŞIEAN, Laura-Bianca Bilius, Radu-Daniel Vatavu. (2021). Assistive Technology in the Synchrony between Ambient Intelligence and Mixed Reality for People with Motor Disabilities. *Proceedings of ISAmI '21, the 12th Interna-*

tional Symposium on Ambient Intelligence (Salamanca, Spain). Lecture Notes in Networks and Systems, Springer Nature Switzerland, 10 pages. `https://link.springer.com/book/9783031068935`

Alexandru-Ionuț ȘIEAN, Radu-Daniel Vatavu, and Jean Vanderdonckt. (2021). Taking That Perfect Aerial Photo: A Synopsis of Interactions for Drone-based Aerial Photography and Video. *In ACM International Conference on Interactive Media Experiences (IMX'21). Association for Computing Machinery, New York, NY, USA, 275–279.* `https://doi.org/10.1145/3452918.3465484`

Alexandru-Ionuț ȘIEAN and Radu-Daniel Vatavu. (2021). Wearable Interactions for Users with Motor Impairments: Systematic Review, Inventory, and Research Implications.*The 23rd International ACM SIGACCESS Conference on Computers and Accessibility. Association for Computing Machinery, New York, NY, USA, Article 7, 1–15.* `https://doi.org/10.1145/3441852.3471212`

Alexandru-Ionuț ȘIEAN. (2022). A Set of Smart Ring Gestures for Drone Control. *International Conference on Electronics, Communications, and Computing (Hybrid Event, Chisinau, Republic of Moldova).*

Alexandru-Ionuț ȘIEAN. (2021). Analysis of State-of-the-Art in Human-Drone Interaction. *Physical and technological problems of transmission, processing and storage of information in info communication systems: Proceedings of IXth International Scientific- Practical Conference. – Chernivtsi: "Ruta", 2021. – pp. 35.*

Ovidiu-Andrei Schipor, Laura-Bianca Bilius, Ovidiu-Ciprian Ungurean, **Alexandru-Ionuț Șiean,** Alexandru-Tudor Andrei, Radu-Daniel Vatavu. (2022). Personalized Wearable Interactions with WearSkill. *Proceedings of W4A '22, the 19th Web for All Conference. ACM, New York, NY, USA, 8:1-8:2.* `https://dl.acm.org/doi/10.1145/3493612.3520474`

Santiago Villarreal-Narvaez, **Alexandru-Ionuț Șiean,** Arthur Sluÿters, Radu-Daniel Vatavu, Jean Vanderdonckt. (2022). Informing Future Gesture Elicitation Studies for Interactive Applications that Use Radar Sensing. *In Proceedings of AVI '22, the International Conference on Advanced Visual Interfaces (Frascati, Rome, Italy). ACM, New York, NY, USA, 3 pages.* `https://doi.org/10.1145/3531073.3534475`

Alexandru-Tudor Andrei, **Alexandru-Ionut Șiean,** Radu-Daniel Vatavu. (2022). Tap4Light: Smart Lighting Interactions by Tapping with a Five-Finger Augmentation Device. *Proceedings of AH '22, the 13th Augmented Human International Conference (Winnipeg, MB, Canada). ACM, New York, NY, USA, 2 pages.* `https://doi.org/10.1145/3532525.3532535`

Awards

Year	Award	
2022	**Delegates Judges' Award**, Proceedings of W4A '22, the 19th Web for All Conference (Lyon, France). New York, NY, USA: ACM, 8:1-8:2 `https://dl.acm.org/doi/10.1145/3493612.3520474`	*W4A*
2022	**Accessibility Challenge Judges' Award**, Proceedings of W4A '22, the 19th Web for All Conference (Lyon, France). New York, NY, USA: ACM, 8:1-8:2 `https://dl.acm.org/doi/10.1145/3493612.3520474`	*W4A*
2019	**Ranked 1st Admitting Class**, Ph.D Student in Computer Science, Faculty of Electrical Engineering and Computer Science, University Štefan cel Mare of Suceava, Romania, Romania	*Average: 10/10*
2019	**Ranked 1st Graduating Class**, Master Engineer Diploma in Computer Science, Faculty of Electrical Engineering and Computer Science, University Štefan cel Mare of Suceava, Romania	*Average: 10/10*
2017	**Ranked 1st Graduating Class**, Engineer Diploma in Computer Science, Faculty of Electrical Engineering and Computer Science, University Štefan cel Mare of Suceava, Romania	*Average: 9.5/10*
2015	**University Senate**, Faculty of Electrical Engineering and Computer Science, University Štefan cel Mare of Suceava, Romania	*One mandate*

Research Projects

Autonomous Recognition and Support Platform

Role: Research Assistant

Implementation during October 2022 and March 2023 (7 months)

The goal was to introduce new methods of interaction between operators and drone swarms, based on the use of a command and control center.

Funded by CENTRIC, Romania (POC-A1-A1.2.3-G-2015, no. MySIMS 119722 (ID P-40-305) project code 18752/05.09/2022

Web page: `https://centric.usv.ro/`

Stress and Coping in Family Relationships: Longitudinal Effects on Couple Dynamics and Parenting Behaviors

Role: Research Assistant

Implementation during October 2022 and March 2024 (18 months)

The goal was to study the longitudinal effects of stress on couple relationships and parenting behaviours by exploring mediating mechanisms and moderating factors. To develop and test the effectiveness of a mobile intervention for improving adaptive coping strategies in family relationships.

Funded by UEFISCDI, Romania (PNCDI III, Research project to stimulate young independent teams, No. TE 121/2022,) project code PN-III P1-1.1-TE-2021-1203

Web page: `http://scorel.usv.ro/`

Academic excellence and entrepreneurial values - scholarship scheme to provide training and entrepreneurial skills development opportunities for PhD students and postdocs - ENTREPRENEURS

Role: Research Assistant

Implementation during March 2021 and March 2023 (12 months)

The goal proposes to implement specific measures to increase the number of university and non-university tertiary education graduates who, as a result of access to the proposed learning activities, will find employment in economic sectors with competitive potential identified according to the NCS and in correlation with the areas of smart specialization according to the NCSDI 2014-2020.

Funded by POCU, Romania ("Support for PhD students and post-doctoral researchers"), contract no. 36355/23.05.2019

Web page: `http://www.antreprenordoc.ugal.ro/ro/`

Increasing the Institutional Capacity of the Machine Intelligence and Information Visualization Research Laboratory for Excellent Science in Interactive Technologies

Role: Research Assistant

Implementation during January 2021 and December 2022 (24 months)

The goal was to consolidate and increase the capacity for scientific research and the international visibility of the MintViz lab.

Funded by UEFISCDI, Romania (PNIII P3, "Awarding participation in Horizon 2020" grant scheme, contract no. 12/2021)

Web page: `http://www.eed.usv.ro/mintviz/projects/MintVizAwardingParticipationH2020/index.php`

Radar-based Sensing Algorithms, Techniques, and Applications for Novel Interactions with Computing Systems

Role: Research Assistant

Implementation during January 2021 and December 2022 (24 months) in cooperation with Université catholique de Louvain, Belgium with a mixed team of faculty members and PhD students.

The goal was to explore applications of radar-based gesture sensing.

Funded by UEFISCDI, Romania (PNIII P3, "European and International Cooperation" grant scheme, contract no.) and Wallonie Bruxelles International

Web page: `http://www.eed.usv.ro/mintviz/projects/RadarSense/index.php`

WEARSKILL: MOTOR-STREAMLINED INTERACTIONS WITH SMART WEARABLES

Role: Research Assistant

Implementation during August 2020 and August 2022 (24 months) with a team of 5 researchers.

The goal was to develop new technology to increase the accessibility of smart wearables, such as smartglasses, watches, and rings for people with upper-body motor impairments.

Funded by UEFISCDI, Romania (PNIII P2, "Demonstrative Experimental Project" grant scheme, contract no. 276PED/2017)

Web page: `http://www.eed.usv.ro/mintviz/projects/WearSkill/index.php`

Teaching Experience

2022 - Present	**C Language**, Faculty of Electrical Engineering and Computer Science, Computer Science Program Study	*Teaching Assistant Headline*
2019 - Present	**Algorithm Design**, Faculty of Electrical Engineering and Computer Science, Computer Science Program Study	*Teaching Assistant Headline*
2020 - 2021	**Software Engineering**, Faculty of Electrical Engineering and Computer Science, Computer Science Program Study	*Teaching Assistant*

Workshops

2024	**Beyond Radar Waves: The First Workshop on Radar-Based Interaction**, `https://www.radarwaves.upr.si/`	*Member of the program committee*