

Gheorghe-Daniel Voinea

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Work Experience

Research Engineer, Virtual Industrial Informatics and Robotics R&D, Department of Automotive and Transportation, Transilvania Univ. of Braşov
Brasov, Romania – February 2023 – present

Technology Transfer Expert, SC ICEBERG PLUS SRL
Brasov, Romania – December 2022 – March 2024

Business Administrator, SC ENERGITECH MOTION SRL
Brasov, Romania – August 2019 - present

Research assistant, Virtual Industrial Informatics and Robotics R&D, Department of Automotive and Transportation, Transilvania Univ. of Braşov
Brasov, Romania – August 2015 – October 2022

Erasmus Internship, University of Novi Sad
Novi Sad, Serbia — February 2016 - May 2016

Erasmus Internship, University of Cagliari, Italy
Cagliari, Italy — July 2013 - October 2013

Internship Student, S.C. Infineon Technologies Romania Co & SCS
Bucuresti, Romania — August 2012 – September 2012

Volunteer – member and team leader, AIESEC Braşov
Braşov, Romania – Oct 2009 – Jul 2011

Research projects

iDRIVE project, researcher, Intelligent connected vehicle cooperative system for enhanced driving experience, PN-IV-P2-2.1-TE-2023-1434.

Coordinator of SAFE-UNITBV, Intelligent systems for increasing safety and comfort in the premises of the Transilvania University of Braşov, *Fii in Centru competition*, total value of 93556 euro.

DILSimEV project, research assistant, Driver-In-the-Loop Simulation for safety-critical testing scenarios of Electric Vehicles, Project number PN-III-P2-2.1-PED-2019-4366.

eHERITAGE Project, research assistant, Expanding the Research and Innovation Capacity in Cultural Heritage Virtual Reality Application. eHERITAGE project was supported by the Research Executive Agency (REA), under the power delegated by the European Commission, under grant number 692103.

SPINE Project, research assistant, System for Diagnosis and Therapy of Spine Diseases, Project number 227/2014 (PN-II-PT-PCCA-2013-4-1596).

NaviEyes Project, research assistant, Intelligent car navigation assistant for mobile devices based on eye gaze tracking and head pose. Project number 240 from 01/07/2014 (PN-II-PT-PCCA-2013-4-2023).

BRAINSPACE Project, research assistant, Hybrid multimodal interfaces that use biopotentials-based methods. RDI Programme for Space Technology and Advanced Research - STAR, project number 566.

BiSolar Project, research assistant, Building Integrated Solar Thermal Collectors with Solar Selective Coatings. ERA-MANUNET-II-BiSolar project.

Education

Mechanical Engineering, Transilvania Univ. of Braşov

2014 – 2021, PhD programme in Industrial Engineering

Electrical Engineering and Computer Science, Transilvania Univ. of Braşov

2012 – 2014, Master of Electronic Systems and Integrated Communications

E-START Master, Transilvania Univ. of Braşov

2012 – 2014, Multi-regional Master project in the eActivities domain (eBussiness, eHealth, eGovernment, eMedia)

Electrical Engineering and Computer Science, Transilvania Univ. of Braşov

2008 – 2012, Bachelor of Applied Electronics

Courses and certifications

Trainer at CREATIVE Summer School 2018, Constanta

Jun 2018 – Jul 2018, Delivered a session about “*Enhancing cultural experience using AR technologies*”

Entrepreneurial competencies course, International Computer School, Bucuresti, Sector 3

Jul 2012 - Aug 2012, Graduated a 60 hours initiation programme. Learned the basics about accounting, marketing and how to make a bussiness plan.

Train The Trainers Conference, Predeal

Apr 2011, National conference organized by AIESEC and The School Of Values in Predeal, where I learned the basics in becoming a trainer.

Volunteering, AIESEC Brasov

Oct 2009 - Jul 2011, My AIESEC experience has helped me to improve my team work, leadership, and communication skills.

Accomplishments

At the beginning of the COVID-19 pandemic, I was responsible of **coordinating** a volunteering activity at the R&D Institute.

Main activities involved 3D printing face shields, assembly work with volunteers (teachers and students), brainstorm ideas that could help alleviate the effects of the pandemic.

Organized Transilvania Game Jam – an event hosted at the R&D Institute in which teams of 3-4 students worked together to develop a computer game in 48 hours and then present it in front of a jury.

Coordinated a non-formal education project for high-school students (<https://growedu.ro/>), between dec. 2010 and may 2011. With a team of 7 members, we organized trainings and team-building activities for more than 100 participants.

Abilities

Engineering and computer science skills:

- **Programming Languages:** C#, Python, Java, C/C++, LabView
- **Design and Simulation:** Android Studio, Blender, Visual Studio, ROS, Autodesk Fusion 360, 3D Slicer, Unity, Unreal Engine
- **Editing Software:** MS Office, Photoshop
- **Data Science:** Microsoft Power BI, Orange 3 Data Mining, Jupyter Notebook

Other competencies: willingness to learn, inquisitive, persuasive and negotiation, proactive, open to new / adaptable, positive thinking.

Foreign Languages (knowledge level):

- English (Advanced)
- German (Beginner)
- Italian (Beginner)

Driving license:

- Cat. **B** (since 2008)

Selected papers

1. **Voinea, G. D.**, Gîrbacia, F., Duguleană, M., Boboc, R. G., & Gheorghe, C.. *Mapping the Emergent Trends in Industrial Augmented Reality*. Electronics, 12(7), 1719, 2023.
2. **Voinea, G. D.**, Boboc, R. G., Buzdugan, I. D., Antonya, C., & Yannis, G. *Texting while driving: a literature review on driving simulator studies*. International journal of environmental research and public health, 20(5), 4354, 2023.
3. Acheampong, R., Balan, T. C., Popovici, D. M., Tuyishime, E., Rekeraho, A., & Voinea, G. D.. Balancing usability, user experience, security and privacy in XR systems: a multidimensional approach. International Journal of Information Security, 24(3), 1-18, 2025.
4. **Voinea, G. D.**, Gîrbacia, F., Postelnicu, C. C., Duguleana, M., Antonya, C., Soica, A., & Stănescu, R. C. *Study of Social Presence While Interacting in Metaverse with an Augmented Avatar during Autonomous Driving*. Applied Sciences, 12(22), 11804, 2022
5. **Voinea, G.D.**, Postelnicu, C., Duguleana, M. *Towards using an augmented reality mobile assistant for improving driving skills*. International Conference on Technologies for E-Learning and Digital Entertainment, Springer, Cham. pp. 52-55, 2017
6. **Voinea, G. D.**, Gîrbacia, F., Postelnicu, C. C., Marto, A. *Exploring Cultural Heritage Using Augmented Reality Through Google's Project Tango and ARCore*. In International Conference on VR Technologies in Cultural Heritage, Springer, Cham., pp. 93-106, 2018.
7. Boboc, R. G., Duguleană, M., **Voinea, G. D.**, Postelnicu, C. C., Popovici, D. M., Carrozzino, M. *Mobile Augmented Reality for Cultural Heritage: Following the Footsteps of Ovid among Different Locations in Europe*. In Sustainability, 11(4), 1167, 2019.
8. Duguleana, M., **Voinea, G. D.** *Enhancing the Experience of Visiting Outdoor Heritage Sites Using Handheld AR*. In International Conference on Human-Computer Interaction, Springer, Cham., pp. 184-191, 2018.
9. Carrozzino, M., **Voinea, G. D.**, Duguleana, M., Boboc, R. G., Bergamasco, M. *Comparing Innovative XR Systems in Cultural Heritage. a Case Study*. In ISPRS-International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 4211, 373-378, 2019.
10. **Voinea, G. D.**, Boboc, R. G., Gîrbacia, F., Postelnicu, C. C. *Technology acceptance of a hybrid brain-computer interface for instruction manual browsing*. Proceedings of the 14th International Conference on Virtual Learning, ICVL, 2019.
11. **Voinea, G. D.**, Postelnicu, C. C., Duguleana, M., Mogan, G. L., Socianu, R. *Driving performance and technology acceptance evaluation in real traffic of a smartphone-based driver assistance system*. International journal of environmental research and public health, 17(19), 7098, 2020