# Lista de lucrări

**A. Teza de BSc.**

*Dezvoltarea gândirii calculatorului pentru copii,* Universitatea Sapientia din municipiul Cluj-Napoca, Facultatea de Științe Tehnice si Umaniste, Departamentul de Matematică și Informatică, Dezvoltarea aplicațiilor software, 2018

**B. Teza de MSc.**

*Prelucrarea datelor imagistice de rezonanţă magnetică şi segmentarea tumorii cerebrale prin metode realizate în limbaj Python***,** Universitatea Sapientia din municipiul Cluj-Napoca, Facultatea de Științe Tehnice si Umaniste, Departamentul de Matematică și Informatică, Dezvoltarea aplicațiilor software, 2020

**C. Lucrări ştiinţifice publicate**

1. Fülöp Tímea, Győrfi Ágnes, **Csaholczi Szabolcs**, Kovács Levente, Szilágyi László: Brain tumor segmentation from multi-spectral MRI data using cascaded ensemble learning. 15th IEEE Int'l Conference on System of Systems Engineering, (SoSE 2020, Budapest), (pp 531-536).
Citat de:

- Biratu ES, Schwenker F, Ayano YM, Debelee TG: A survey of brain tumor segmentation and classification algorithms. Journal of Imaging 7(9):179, 2021

2. Győrfi Ágnes, **Csaholczi Szabolcs**, Fülöp Tímea, Kovács Levente, Szilágyi László: Brain tumor segmentation from multi-spectral magnetic resonance image data using an ensemble learning approach. IEEE Int'l Conference on Systems, Man and Cybernetics (SMC 2020, Toronto), (pp 1699-1704).
Citat de:

- Bhalodiya JM, Keung SNLC, Arvanitis TN: Magnetic resonance image-based brain tumour segmentation methods: A systematic review. Digital Health, doi: 10.1177/20552076221074122, available online 16 March 2022

3. **Csaholczi Szabolcs**, Iclănzan David, Kovács Levente, Szilágyi László: Brain tumor segmentation from multi-spectral MR image data using random forest classifier. 27th Int'l Conference on Neural Information Processing (ICONIP 2020, Bangkok), (LNCS vol. 12532, pp 174-184).
Citat de:

- Zhou TX, Canu S, Vera P, Ruan S: Feature-enhanced generation and multi-modality fusion based deep neural network for brain tumor segmentation with missing MR modalities. Neurocomputing 466:102-112, 2021
- Bhalodiya JM, Keung SNLC, Arvanitis TN: Magnetic resonance image-based brain tumour segmentation methods: A systematic review. Digital Health, doi: 10.1177/20552076221074122, available online 16 March 2022

- Dawod AY, Phaphuangwittayakul A, Angkurawaranon S: A hybrid method for traumatic brain injury lesion segmentation. International Journal of Electrical and Computer Engineering 12(2):1437-1448, 2022

4. **Csaholczi Szabolcs**, Kovács Levente, Szilágyi László: Automatic segmentation of brain tumor parts from MRI data using a random forest classifier19th World Symposium on Applied Machine Intelligence and Informatics (SAMI 2021, Szlovákia), (pp 471-476).
Citat de:

- Biratu ES, Schwenker F, Ayano YM, Debelee TG: A survey of brain tumor segmentation and classification algorithms. Journal of Imaging 7(9):179, 2021
- Swain DK: Combining VGG16 with Random Forest and Capsule Network for Detecting Multiple Myeloma. MSc thesis, Dublin, National College of Ireland, 2021

5. Kőble Andrea, Győrfi Ágnes, **Csaholczi Szabolcs**, Surányi Béla, Fazakas Dénes, Kovács Levente, Szilágyi László: Identifying the most suitable histogram normalization technique for machine learning based segmentation of multispectral brain MRI data" Contributing to the Industrialisation of Africa through Innovations in Science and Technology (IEEE AFRICON 2021. szeptember, Tanzania), (pp 71-76).

6. Ágnes Győrfi, **Szabolcs Csaholczi**, Ioan Marius Pisak Lukáts, Dénes-Fazakas Lehel, Andrea Kőble, Olga Shvets, György Eigner, Levente Kovacs and László Szilágyi: Effect of spectral resolution on the segmentation quality of magnetic resonance imaging data (INES 2022, Crete, Greece)

7. László Szilágyi, Ágnes Győrfi, Lehel Dénes-Fazakas, Ioan Marius Pisak Lukáts, **Szabolcs Csaholczi** and Levente Kovács," Challenges and Difficulties of Multi-Spectral MRI Based Brain Tumor Detection and Segmentation" International Conference on Health Science and Technology (IEEE ICHST 2023. december, Korea)

8. **Szabolcs Csaholczi**, Levente Kovács, and László Szilágyi "Brain Tumor Classification Using Convolutional Neural Networks and Deep Learning" International Conference on Computational Cybernetics and Cyber-Medical Systems (IEEE ICCC 2024, Hanoi, Vietnam)

9. Lehel Dénes-Fazakas, **Szabolcs Csaholczi**, György Eigner, Levente Kovács and László Szilágyi "Using Resizing Layer in U-net to Improve Memory Efficiency" System Dependability - Theory and Applications (DepCoS-RELCOMEX, July 1–5, 2024, Brunów, Poland), Lecture Notes in Networks and Systems (LNNS, volume 1026)

10. **Szabolcs Csaholczi**, Ágnes Györfi, Levente Kovács3, and László Szilágyi „Segmentation of Brain Tumor Parts from Multi-Spectral MRI Records Using Deep Learning and U-net Architecture", 27th Iberoamerican Congress on Pattern Recognition UNIVERSIDAD CATÓLICA DEL MAULE Talca, Chile (CIARP 2024, Chile)

**Data,**
17.10.2024

**Semnătura,**