

Curriculum Vitae

Eng. Dragoș-Vasile BRATU

dragos.bratu@unitbv.ro

<https://www.linkedin.com/in/dragosbratu/>



Professional Experience

- 2015-Present ● Expert Senior Embedded Software Engineer,
Miele Tehnica, Brașov, Romania.
- 2014 ● Software developer intern Summer School,
Siemens, Brașov, Romania.
- 2013 ● Internship on electronic devices,
Miele Tehnica, Brașov, Romania.

Education

- 2017-2023 ● PhD in IT and Computer Science,
Transylvania University of Brașov.
- 2015-2017 ● Master of Science in Advanced Systems in Automation and Information Technologies,
Transylvania University of Brașov.
- 2011-2015 ● Bachelor's Degree in Automation and Applied Informatics,
Transylvania University of Brașov.

Skills

- Language ● English (Advanced), German (Beginner), French (Beginner)
- Programming ● C/C++, Python, Java
- Software ● LaTeX, MsOffice, OpenCV, Keras, Tensorflow, ESP-IDF, O-Zone, J-Link, MISRA, Sonarqube, Git, PTC, Jira, Confluence, FreeRTOS, Atmel Studio
- Electronics ● Embedded Dev Boards, Communication Protocols, Electronics

Domains of interest

- Edge Computing
- Machine learning
- Robotics
- Medical imaging

List of Publications

- D.-V. Bratu, R.Ș.T. Ilinoiu, A. Cristea, M.-A. Zolya, S.-A. Moraru, “**Anomaly Detection Using Edge Computing AI on Low Powered Devices**”, IFIP Advances în Information and Communication Technology (Book series), Vol. 646 IFIP, 18th IFIP WG 12.5 Int. Conf. on Artificial Intelligence Applications and Innovations, AIAI 2022, Hersonissos, Grecia, 2022, pag. 96 – 107. (Scopus, DOI: 10.1007/978-3-031-08333-4_8);
- D.-V. Bratu, M.-A. Zolya, S.-A. Moraru, “**A Different View on Artificial Intelligence Applications for Cardiac Arrhythmia Detection and Classification**”, Book Series: Lecture Notes in Networks and Systems, Vol. 298, Proceedings of the 18th International Conference on Remote Engineering and Virtual Instrumentation REV2022, Hongkong, 2022, pag. 415 – 427. (ISI Web of Science, Scopus, DOI: 10.1007/978-3-030-82529-4_41);
- D.-V. Bratu, S.-A. Moraru, L.G. Gușeilă, “**A Performance Comparison between Deep Learning Network and Haar Cascade on an IoT Device**”, Lisbon, Portugal, 2019 International Conference on Sensing and Instrumentation in IoT Era (ISSI) doi:10.1109/issi47111.2019.9043714;
- A.F. Popov, D.M. Kristaly, D.-V. Bratu, M.-A. Zolya, S.-A. Moraru, “**A Method for Using GSM Technology and SCADA Systems to Monitor and Control Decommissioned and Partially Decommissioned Railway Stations**”, 2023, Applied Sciences, 13 (8), 4874,doi: 10.3390/app13084874;
- L.G. Gușeilă, D.-V. Bratu, S.-A. Moraru, “**Continuous Testing in the Development of IoT Applications**”, 2019 International Conference on Sensing and Instrumentation in IoT Era (ISSI), Lisbon, Portugal, 2019, pp. 1-6, doi: 10.1109/ISSI47111.2019.9043692;
- A.F. Popov, D.-V. Bratu, S.-A. Moraru, “**Remote Control of Railway Switch Heating Using GSM Modems**”, The Annals of “Dunarea de Jos” University of Galati. Fascicle IX, Metallurgy and Materials Science 42 1, 2019, 42–47. Remote Control of Railway Switch Heating Using GSM Modems;
- L.G. Gușeilă, D.-V. Bratu, S.-A. Moraru, “**DevOps Transformation for Multi-Cloud IoT Applications**”, 2019 International Conference on Sensing and Instrumentation in IoT Era (ISSI), Lisbon, Portugal, 2019, doi: 10.1109/ISSI47111.2019.9043730.

Coordinator, Competitions and Participation in Scientific Sessions

- Scientific coordinator, SCSS, year 2019, project title “Wall-e, intervention tank”, section ROBO, location ICDT Braşov, students Mădălin-Andrei Sava (AIA) and Petruţ Condrea (ROBO);
- Scientific coordinator, SCSS, year 2019, project title “Mailo”, section TI, location ICDT Braşov, student Nicolae Iosif, (AIA);
- Scientific coordinator, SCSS, year 2021, project title “RoboCovCleaner”, section SAATI, location ICDT Braşov, students Maria-Alexandra Zolya, (SAATI) and Ana-Maria Andrei (SAATI);
- Scientific coordinator, SCSS, year 2022, project title “Sistem pentru automatizarea procesului de sterilizare în spațiile interioare - RoboCovCleaner”, section SAATI, location ICDT Braşov, students Maria-Alexandra Zolya (SAATI) and Ana-Maria Andrei (SAATI);
- Scientific coordinator, Dissertation project , year 2022, title “Sistem pentru automatizarea procesului de sterilizare în spațiile interioare - RoboCovCleaner”, students Maria-Alexandra Zolya (SAATI) and Ana-Maria Andrei (SAATI);
- Scientific coordinator, Dissertation project and project within the event Absolvenții în Fața Companiilor – AFCO , year 2021, title “Tehnici de Machine Learning Aplicate in Smart Home si IoT”, Facultatea de Inginerie electrică și știința calculatoarelor, student Alexandru Cristea (SECI);
- Scientific coordinator, Bachelor Degree and project within the event Absolvenții în Fața Companiilor – AFCO , year 2021, title “Tehnici de Machine Learning Aplicate in Smart Home si IoT”, ATI Department, student Rareş Ştefan Tiberius Ilinoiu (TI).

Participation in Field Conferences

- Technical presenter of the topic “Artificial intelligence and new technologies in our everyday lives” at the conference “Future Summit Braşov”. Data 30.03.2023, location Braşov, România;
- Coordinator and participant of the task force for “RoboCovCleaner”, on “Fii în centru!” competition, year 2020–2021, location Braşov, România;
- Participant in the innovation specialist summit “Bucharest tech week – Inovation Summit”. Topics covered: AI, CleanTech, Wearables, Sustainability, IoT, Web3, and robotics, year 2023, location Bucureşti, România;

- **Technical coordinator** practical workshop **“MMWM - Miele - Mini Washing Machine”**, 12.02.2020, location **ETI, UPB, București, România**;
- **Coordonator tehnic** workshop for students at **BuzzCamp**, date **20.11.2018**, location **Hotel Ambient Brașov, România**;
- **Technical coordinator** at the workshop for students at the event **BuzzCamp**, topic **“Connect to Miele Smart World – Create your own smart washing machine”**, date **19.11.2019**, location **Hotel Ambient Brașov, România**;
- **Participant** at the **workshop** organized in the framework of the **“Future co-creation exercise”** conference. Objective: discussions on sustainability, new technologies and the future of Brasov. Date **30.03.2023**, location **Brașov, România**;
- **Participant** in the conference of software development and artificial intelligence technologies **“DevTalks 2022”**. Date **08.06.2022-10.06.2022**, location **hybrid, online-physical (Bucharest, Romania)**;
- **Participant** in the conference of the specialized **“Romanian AI Days 2023”**. Date **20.09.2023-21.09.2023**, location **Brașov, Romania**;
- **Participant** in the conference of the software development and artificial intelligence technologies **“DevTalks Reimagined 2021”**. Date **09.06.2021-11.06.2021**, location **online**;
- **Participant** in the conference of the development topic **“Artificial Intelligence: The Future of Software”**, date **06.06.2019**, location **Bucharest, Romania**;
- **Participant** in the conference of the **“Embedded world 2022”** low-consumption devices **“Embedded world 2022”**. Date **21.06.2022-23.06.2022**, location **Nuremberg, Germany**;
- **Presenter** session **“Strategic Partnership between University and Electronics Industry”** at **IEEE 25th International Symposium for Design and Technology in Electronic Packaging SIITME** conference and exhibition, date **23-26.11.2019**, location **Cluj, Romania**;
- **Conference Participant** expert in the field of Artificial Intelligence and Cloud technologies, within the **“Google Cloud Day”** conference, date **12.11.2019**, location **Bucharest, Romania**.