ing. DRĂGOI Marius-Valentin

TECHNICAL EXPERTISE

Languages: Python, C++, C, Java, bash/Unix shell

Environments: Windows, Unix/Linux

Tools: PyCharm, Visual Studio, Eclipse, ClearCase, ClearQuest, Matlab

EDUCATION

2020 - 2023   **University:** Politehnica University of Bucharest
Faculty: Mechatronics, Robotics, and Automation Engineering
Department: Material Resistance
Field: Mechanics
Degree: PhD

2013 - 2015   **University:** Politehnica University of Bucharest
Faculty: Computer Science and Information Technology
Department: Advanced Computers Architectures
Field: Computer Science
Degree: Master

2009 - 2010   **University:** Politehnica University of Bucharest
Faculty: Computer Science and Information Technology
Department: Computers
Field: Computer Science
Degree: Bachelor

PERSONAL RESULTS

December 2022 - PRESENT
Member of the Central Commission of the National Mathematics Olympiad of Romania.

March 2021 - PRESENT
Member of the Romanian Mathematical Sciences Society - Bucharest branch.

2003 - 2009
High School - Former national Olympic at math, with several first prizes in national contests, four bronze medals, one silver medal, and one gold medal at National Math Olympics.

PUBLICATIONS

2023   **Article:** *Contributions to the Dynamic Regime Behavior of a Bionic Leg Prosthesis*
Authors: Marius-Valentin Drăgoi, Anton Hadăr, Nicolae Goga, Florin Baciu, Amado Ștefan, Lucian Ștefăniță Grigore, Damian Gorgoteanu, Cristian Molder and Ionica Oncioiu
Publisher: Biomimetics, Vol. 8, Iss. 5, pp. 414, 2023
Impact factor: 4.5
Rank: Q1
DOI: https://doi.org/10.3390/biomimetics8050414

Conference: *Aspecte generale privind mişcarea în timp real a unui braţ protetic şi a unui picior protetic folosind tehnologia BCI, bazată pe EEG*
Authors: Marius-Valentin Drăgoi, Haider Abdullah Ali, Anton Hadăr
Publisher: Academia Oamenilor de Știință din România, 3-5 November 2023, Constanta
(**accepted for publication**)
ISSN:2601-5102
Resource:

Article: *Design and implementation of an EEG-based BCI prosthetic lower limb using Raspberry PI 4*
Authors: Marius-Valentin Drăgoi, Anton Hadăr, Nicolae Goga, Lucian-Ștefăniță Grigore, Amado Ștefan, Haider Abdullah Ali
Publisher: U.P.B. Scientific Bulletin, Series C - Electrical Engineering and Computer Science, Vol. 85, Iss. 3, 2023
Impact factor: 0,3
Rank: Q4
ISSN:2286-3540

2022   **Article:** *English and Romanian Brain-to-Text Brain-Computer Interface Word Prediction System*
Authors: Haider Abdullah Ali, Nicolae Goga, Andrei Vasilăţeanu, Ali Muslim, Khalid Abdullah Ali, Marius-Valentin Drăgoi
Publisher: International Journal of Advanced Computer Science and Applications, Vol. 13, Iss. 10, Page 15-23, 2022
Impact factor: 0,9
Rank: Q4
WOS:000923458000003

Conference: *Aspecte generale privind proiectarea şi implementarea unei proteze membru inferior şi controlarea sa folosind semnale provenite de la creier*
Authors: Marius-Valentin Drăgoi, Anton Hadăr
Publisher: Academia Oamenilor de Știință din România, Cluj-Napoca, 3-5 November 2022

Conference: *Determining the User's Requirements for an Intelligent Mind-Controlled Prosthetic Lower Limb System*
Authors: Marius-Valentin Drăgoi, Anton Hadăr, Nicolae Goga, Haider Abdullah Ali
Publisher: IEEE, Bucharest, 24-25 October 2022
Electronic ISBN:978-1-6654-6014-9
DOI: 10.1109/SmartBlock4Health56071.2022.10034519

Article: *An Efficient System for Eye Movement Desensitization and Reprocessing (EMDR) Therapy: A Pilot Study*
Authors: Nicolae Goga, Costin-Andton Boiangiu, Andrei Vasilateanu, Alexandru-Filip Popovici, Marius-Valentin Drăgoi, Ramona Popovici, Ionatan Octavian Gancea, Mihail Cristian Pîrlog, Ramona Cristina Popa, Anton Hadăr
Publisher: Healthcare, Vol. 10, Iss. 1, 2022
Impact factor: 3.16
Rank: Q2
WOS:000747056300001

2020 **Conference:** *An intelligent EMDR system for helping students with psychological problems*
Authors: Popovici Alexandru-Filip, Goga Nicolae, Goga Maria, Gancea Ionatan Octavian, DRAGOI Marius-Valentin, Dragomir Ramona, DINU Marinel Cornelius
Publisher: Proceedings of the 16th International Scientific Conference *„eLearning and Software for Education"*, Vol. 2, pp. 207-214, Bucharest, April 30 - May 1, 2020

2009 **Book:** *Olimpiade matematice 2009*
Publisher: Editura Targu-Jiu
Content: Math problems, to help middle school and high school students prepare for the National Mathematics Olympiad

PROFESSIONAL EXPERIENCE

October 2022 - PRESENT
Employer: Polytehnica University of Bucharest
Faculty: Faculty of Engineering in Foreign Languages
Role: Assistant Professor
Classes: Teach *„Introduction to Python"* to students
Location: Bucharest

June 2018 - PRESENT

    Employer: SIBS Romania
    Role: Senior Software Development Engineer in C/C++ and Python
    Location: Bucharest
    Tasks:
       ➢ Maintain and improve current C/C++/Python applications which are responsible to process financial transactions;
       ➢ Implement Python/C++ tools to validate, debug, and support current processes;
       ➢ support current internal processes;
       ➢ Develop new features for UIC POS Reader and CASTLES devices;
       ➢ Bug fixing activities;
       ➢ Working together with the architect to plan to develop new projects;
       ➢ Create the project plan with the team architect and fulfill that plan as a developer;
       ➢ Develop internal tools in Python.
    Languagers: Python. C++, C
    Tools: PyCharm, Visual Studio, Bitbucket, Jira, VM Ware

March 2017 - June 2018

    Employer: HARMAN International Romania
    Role: Senior Software Development Engineer in C/C++
    Location: Bucharest
    Tasks:
       ➢ Maintenance and refactoring on the current project for BMW Infotainment System;
       ➢ Develop Python scripts for testing infotainment system device;
       ➢ Bug fixing activities;
       ➢ Patch developed for profiling an internal application.
    Languagers: Python. C++, C
    Tools: Visual Studio, PyCharm, Bitbucket, VM Ware, Jira

February 2014 - March 2017

    Employer: THALES Systems Romania
    Role: Software Development Engineer in C/C++
    Location: Bucharest
    Tasks:
       ➢ Develop new features for Railway System using C/C++ according to project requirements;
       ➢ Bug fixing activities;
       ➢ Develop unit tests for code coverage;
       ➢ Code reading and code reworking activities;
       ➢ Develop Atoll coverage tests;
       ➢ Agile methodology is used.
    Languagers: C++, C
    Tools: Visual Studio, Bitbucket, Jira, Clear Case, Clear Quest, Eclipse, Vector Cast, Atoll

August 2013 - February 2014

    Employer: FREESCALE Semiconductor

Role: Internship (Software Development in C/C++)
Location: Bucharest
Tasks:

➢ Develop an application (C code in Autosar OS) for inter-core communication using shared memory (communication between core M4 with Autosar OS and core A5 with Linux);

➢ Develop several scripts (batch and Perl) for code refactoring and code improvement on system tests of Autosar OS;

➢ Make debug, develop code improvement and create unit tests on a system generator.
Languagers: C++, C, JAVA, Junit, Embeded C, Perl
Tools: Clear Case, Clear Quest, Eclipse, Lauterbach Development Tools

February 2013 - August 2013
Employer: INTEL Software Romania
Role: Internship (Software Development in C/C++)
Period: February 2013 - August 2013
Location: Bucharest
Tasks:

➢ Develop applications (C algorithms) to eliminate manual checking of complex calculations on several files, saving one to two hours of an engineer's time per day;

➢ Develop scripts (Python) to automate the processing of system self-test results and C++ applications.
Languagers: C, C++, Python
Tools: Visual Studio, Emacs