



Theodor-Radu Grumeza

[Redacted contact information]

WORK EXPERIENCE

06/2021 – CURRENT Timișoara, Romania

SYSTEM ENGINEER WEST UNIVERSITY OF TIMISOARA

- Monitors the operation of computer systems, keeps track of the technical condition of each piece of equipment and how to resolve malfunctions;
- Identifies anomalies in the operation of equipment and operating systems and develops solutions to eliminate them;
- Provides technical assistance and advice to users on how to use computer systems;
- Maintains the efficiency of the IT infrastructure;
- Ensures the cohesion of systems and services;
- Monitor the network to ensure availability to users.

02/2022 – CURRENT

UNIVERSITY TEACHING ASSISTANT WEST UNIVERSITY OF TIMISOARA, FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Teaching labs of Introduction to Robotics
Teaching labs of Computer Networks
Teaching labs of Computer Architecture

01/02/2024 – CURRENT Timisoara, Romania

RESEARCH ASSISTANT IN COMPUTER SCIENCE WEST UNIVERSITY OF TIMISOARA

Research project name: Artificial Intelligence based Robotics (AiRobo)

- Developing and implementing practical applications for robotics
- Contributing to the writing and development of the project book

05/2024 – 12/2024 Timisoara, Romania

PROJECT MANAGER WEST UNIVERSITY OF TIMISOARA

Project name: SmartBits Robotics - Creation and development of ideas and technologies

- Organizing and conducting workshops on 3D printing and embedded systems

18/06/2024 – 18/12/2024 Timisoara, Romania

EXPERT FOR REPORTING AND IMPLEMENTATION ACTIVITIES WEST UNIVERSITY OF TIMISOARA

Project name: Synergies between Generative Artificial Intelligence and The Internet of Things: The Technological and Creative Potential

- Preparing detailed reports on project activities and actively contributing to their implementation

01/10/2024 – 16/11/2024 Timisoara, Romania

TECHNICAL SKILLS TRAINER WEST UNIVERSITY OF TIMISOARA

Project name: Social equity for students and pupils in WUT

- Organising and teaching robotics activities

25/05/2023 – 17/08/2024 Timisoara, Romania

COMPUTER SCIENCE TRAINER/MENTOR WEST UNIVERSITY OF TIMISOARA

Project name: Learning Center for Technology, Art and Sport

01/01/2022 – 31/12/2023 Timisoara, Romania

RESEARCH IT SUPPORT WEST UNIVERSITY OF TIMISOARA

Research project name: Advanced computational statistics for planning and tracking production environments (SCAMP-ML)

- Providing technical support for research activities.

19/05/2022 – 17/12/2022

ACTIVITIES COORDINATION EXPERT WEST UNIVERSITY OF TIMISOARA

Project name: Competences for the future - Emerging robotics

- Organising and teaching robotics activities

05/08/2022 – 31/08/2022 Timisoara, Romania

COORDINATOR OF EDUCATIONAL ACTIVITIES WEST UNIVERSITY OF TIMISOARA

Project name: West Summer University

- Organising and teaching robotics activities

11/11/2019 – 31/08/2022 Timișoara, Romania

WEB DEVELOPER WEST UNIVERSITY OF TIMISOARA

Research project name: Automated Reasoning in the Class (ARC)

- Creating and maintaining the ARC project website.

09/09/2020 – 30/06/2022 Timișoara, Romania

RESEARCH IT SUPPORT - COMPUTER SYSTEM PROGRAMMER WEST UNIVERSITY OF TIMISOARA

Research project name: Modernisation of the computing and storage infrastructure of the Informatics Research Center of the West University of Timisoara for the provision of cloud services and high performance computing services (MOISE)

- Providing technical support for research activities.

09/2018 – 06/2021 Timisoara, Romania

COMPUTER NETWORKING AND SYSTEMS TECHNICIAN WEST UNIVERSITY OF TIMISOARA

- Maintains the efficiency of the IT infrastructure;
- Ensures the cohesion of systems and services;
- Troubleshoot problems reported by users;
- Monitor the network to ensure availability to users.

● EDUCATION AND TRAINING

10/2022 – CURRENT

PHD STUDENT IN THE FIELD OF COMPUTER SCIENCE West University of Timisoara

07/2021 – 07/2023 Timișoara, Romania

MASTER OF APPLIED PHYSICS IN MEDICINE West University of Timisoara

07/2020 – 07/2022 Timișoara, Romania

MASTER IN CYBERSECURITY West University of Timisoara

07/2017 – 07/2020 Timișoara , Romania

BACHELOR'S DEGREE IN COMPUTER SCIENCE (CURRICULUM WITH TEACHING IN ENGLISH) West
University of Timisoara

09/2013 – 07/2017 Orăștie, Romania

MATHEMATICS AND COMPUTER SCIENCE "Aurel Vlaicu" National College Orăștie

● LANGUAGE SKILLS

Mother tongue(s): **ROMANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C2
FRENCH	A1	A1	A1	A1	A1
GERMAN	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● PUBLICATIONS

2024

[Performance of LLMs on Computing Systems for Deployment in IoT Devices](#)

International Conference on Broadband and Wireless Computing, Communication and Applications, Springer Nature Switzerland

2024

[A Case Study in Generating 3D Maps with Collaborative Robots](#)

4th International Conference on Electrical, Computer, Communications and Mechatronics Engineering (ICECCME)

2024

[Integration of LLM in Expiration Date Scanning for Visually Impaired People](#)

Scalable Computing: Practice and Experience Journal

2024

[Integration of LLM in Barcode Scanning for Visually Impaired People](#)

International Conference on Complex, Intelligent, and Software Intensive Systems

2024

[Social Robots and Edge Computing: Integrating Cloud Robotics in Social Interaction](#)

International Conference on Advanced Information Networking and Applications

2024

[A Case Study in Building 2D Maps with Robots](#)

21st International Conference on Informatics in Control, Automation and Robotics (ICINCO)

2023

[Automatic organizer for medication administration](#)

Patent

2023

[Dispozitiv automat de distribuire a unor elemente de uz didactic](#)

Patent

PROJECTS

03/2024 – CURRENT

SoundSight

A system that converts visual information into audio feedback for individuals with visual impairments.

03/2024 – CURRENT

SpotFinder

A sensor-based system that helps users locate the nearest available parking spot.

02/2023 – CURRENT

SightlessBites

The proposed device represents a smart appliance that mimics the functionalities of a warehouse with Vertical lift modules, utilizing electronic modules and mechanical components to improve the quality of life and promote self-sufficiency among visually impaired individuals

07/07/2022 – CURRENT

ChatterGlove

The ChatterGlove device translates hand movements from sign language into text and voice via a mobile app.

This project also represents my Master Thesis.

04/2022 – CURRENT

PSYCH0-BRA1N

The PSYCH0-BRA1N invention is composed by a Unicorn Hybrid Black wearable EEG-headset for brain-computer interface (BCI) and an app created in C# in order to make the Rorschach projective psychological test more accurate.

04/2020 – 07/2021

e-MedCare

The system called e-MedCare represents a smart and safe connection device between healthcare professionals and patients.

The solution was developed to prevent direct physical contact but still facilitate data exchange in order to closely monitor patient healthcare and intervene if necessary safeguarding the treatment scheme.

This project also represents my Bachelor Thesis.

11/2019 – CURRENT

LegoSorter

The LegoSorter invention was designed to sort lego parts by their shape using image processing.

10/2019 – 06/2021

AutoMarker

The technical solution of the AutoMarker invention is composed of a device that has as its use the automatic distribution of markers for the user.

02/2019

SmartPills

The SmartPills invention is composed by an automatic medication dispenser, which was designed to help people that forget to take their pills.

06/2017 – 03/2018

ShoesEye

The ShoesEye invention it composed by a shoe that wants to help visually impaired people to walk safer.

● HONOURS AND AWARDS

12/2024

Recognition as part of the "100 Young People for Romania's Development" campaign. – Dan Voiculescu Foundation

12/2024

Achieved a top-three position at the 2024 Student Gala for Innovation – Dan Voiculescu Foundation

19/11/2024

"Innovation in West University of Timișoara" prize for innovation and entrepreneurship activities – West University of Timisoara

06/11/2024

Third Prize in the Freestyle category at Robochallenge, the largest robotics competition in Europe – Politehnica University of Bucharest

07/2024

Awarded a €3000 scholarship in recognition of outstanding achievements in robotics – ING Bank and the Timișoara Community Foundation

10/03/2024

First Prize, ITFest Hackathon, Health & Wellness track, Advanced category – West University of Timisoara

13/06/2023

First Prize of the CyberHack - Capture the Flag contest – Faculty of Mathematics and Computer Science, West University of Timisoara

03/2023

Call for VITALISE project (Horizon 2020)

Testing ChatterGlove device at "Thomas More University of Applied Sciences" in Belgium

11/2022

Grand Prize International Hackathon UniHack – Politehnica University of Timisoara

12/2022

Second place InnoUnita (Innovation Capacity Building) – West University of Timisoara

01/2020

Qualifying for the final round of the International AstroPi Challenge ESA - Mentor of 2 teams – European Space Agency

03/2018

Second Prize, RoboTEC, International Stage, Section: Freestyle – Politehnica University of Timisoara

04/2018

Special mention, Be An Innovator, National Stage – BearingPoint România

06/2017

Second Prize at the Education Info Contest, County Stage, Section: Robots – Romanian Ministry of Education

04/2016

Second Prize at the Acadnet National Contest, County Stage, Section: Computers, group 11-12 – Romanian Ministry of Education

03/2015

Third Prize at the Acadnet National Contest, County Stage, Section: Computers, Group 9-10 – Romanian Ministry of Education

03/2014

Second Prize at the Acadnet National Contest, County Stage, Section: Computers, Group 9-10 – Romanian Ministry of Education

● **VOLUNTEERING**

01/2023 – CURRENT West University of Timisoara

Open Robotics Intelligent Grid Robotics camp coordinator

04/2018 – CURRENT West University of Timisoara

Smart::Bits robotics team leader

- Coordination of a team of students from the West University of Timișoara, for the creation of robotics and innovation projects.

10/2019 – 11/2021 "Aurel Vlaicu" National College Orăștie

Workshop Robotics

- In this workshop we work together with pre-university students on various robotics projects.

10/2017 – 08/2018 West University of Timisoara

Computer networking and systems technician

● **TECHNICAL SKILLS AND CERTIFICATIONS**

Openstack Administration

- Connecting Networks (June 2017)
- Routing and Switching Essentials (February 2016)
- Scaling Networks (March 2016)
- Introduction to Networks (June 2015)

Metal as a Service (MAAS) Administration

- Cybersecurity Essentials (February 2020)
- Introduction to Cybersecurity (February 2020)
- IT Essentials (March 2017)
- Introduction to IoT (March 2017)
- NDG Linux Introduction to Linux II (March 2017)
- NDG Linux Essentials (July 2016)

Canonical JUJU Administration

HPE Aruba Switches Configuration

Ubiquity Switches Configuration

CCNA Routing and Switching

Cisco Networking Academy

Microsoft Academy Certificate (May 2019)

Microsoft Azure SQL Workshop Certificate (December 2018)

ECDL BAC Profile (May 2017)

● **CONFERENCES, WORKSHOPS AND COMPETITIONS**

02/2019 – CURRENT

First Tech Challenge Robotics Competition

Technical member of the jury

06/2022 – 06/2022

30th European Conference on Information Systems - ECIS 2021

IT Support in the organizing team

International Symposium on Symbolic and Numeric Algorithms for Scientific Computing

Technical Chair in the organizing committee. (December 2021, September 2020, September 2019)

09/2019

Working Formal Methods Symposium

Technical Chair in the organizing committee. (December 2021, September 2019)

12/2018

European Early Innovators Initiative

Presenting an innovative idea that can become a finished product.

12/2018

Embedded Conference IT Fest

During the IT Fest project organized by the West University of Timișoara, I gave a presentation of the ShoesEye project, related to how this product can help people with visual impairments.

05/2018

Entrepreneurial Discussion Workshop Sensors, Robotics, Intelligent Objects

In this workshop we presented some approaches that can help the Western Region of Romania to develop using IoT.

DRIVING LICENCE

Driving Licence: B | 31/12/2020 – 31/12/2030