



# Alexandre Rekeraho

✉ Email: [alexandre.rekeraho@unitbv.ro](mailto:alexandre.rekeraho@unitbv.ro)

Gender: Male

## WORK EXPERIENCE

[ 01/10/2024 – Current ]

### Research assistant in university

*Transilvania University of Brasov*

City: Brasov | Country: Romania

- Scientific research activities, participation in scientific activities and events (conferences)
- Contribute to the SPIRIT research project focused on developing a secure Virtual Reality (VR) platform
- Support the integration of cybersecurity mechanisms in the system
- Assist in technical writing and dissemination of research findings in international conferences

[ 18/12/2017 – 01/10/2019 ]

### Information Technology Manager

*Kigeme District Hospital*

City: Nyamagabe | Country: Rwanda

- Implemented and managed digital health systems across the hospital and affiliated health centers, supporting the healthcare sector's transition to digitized workflows and improved service delivery quality.
- Implemented network security measures and system upgrades, contributing to enhanced data protection and operational reliability
- Contributed to the integration of cybersecurity practices within clinical workflows and sensitive data environments
- Provided technical support and training for medical and administrative staff in the use of Electronic Medical Records (EMR) systems
- Collaborated with the leadership on IT planning, aligning digital infrastructure with healthcare delivery goals.

## EDUCATION AND TRAINING

[ 01/10/2021 – Current ]

### PhD in Electronics, Telecommunications and Informational Technologies

*Transilvania University of Brasov, Interdisciplinary Doctoral School* [www.unitbv.ro](http://www.unitbv.ro)

Address: B-dul Eroilor 29, Braşov, Cod poştal 500036, România, 500036, Brasov, Romania

[ 01/10/2019 – 06/07/2021 ]

### Masters degree in Cybersecurity

*Transilvania University of Brasov, Faculty of Electrical Engineering and Computer Science* [www.unitbv.ro](http://www.unitbv.ro)

Address: B-dul Eroilor 29, Braşov, Cod poştal 500036, România, 500036, Brasov, Romania

[ 01/09/2013 – 30/09/2017 ]

### Bachelor degree in Computer Science

*University of Rwanda* [www.ur.ac.rw](http://www.ur.ac.rw)

City: Kigali | Country: Rwanda

[ 06/05/2024 – 05/11/2024 ]

### Certified SOC Analyst(CSA)

## LANGUAGE SKILLS

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### Other language(s):

#### English

LISTENING C2 READING C2 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

#### French

LISTENING C1 READING C1 WRITING B1

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

#### Romanian

LISTENING B1 READING B1 WRITING A2

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

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

## PUBLICATIONS

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### 1. Cybersecurity challenges in IoT-based smart renewable energy

**Reference:** Rekeraho, A., Cotfas, D. T., Cotfas, P. A., Bălan, T. C., Tuyishime, E., & Acheampong, R. (2024). Cybersecurity challenges in IoT-based smart renewable energy. *International Journal of Information Security*, 23(1), 101-117.

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### 2. Enhancing Cloud Security—Proactive Threat Monitoring and Detection Using a SIEM-Based Approach

**Reference:** Tuyishime, E., Balan, T. C., Cotfas, P. A., Cotfas, D. T., & Rekeraho, A. (2023). Enhancing Cloud Security—Proactive Threat Monitoring and Detection Using a SIEM-Based Approach. *Applied Sciences*, 13(22), 12359

### 3. Enhancing Security for IoT-Based Smart Renewable Energy Remote Monitoring Systems

**Reference:** Rekeraho A, Cotfas DT, Cotfas PA, Tuyishime E, Balan TC, Acheampong R. Enhancing Security for IoT-Based Smart Renewable Energy Remote Monitoring Systems. *Electronics*. 2024; 13(4):756. <https://doi.org/10.3390/electronics13040756>.

### 4. Enhancing Security and Authenticity in Immersive Environments

**Reference:** Acheampong, R., Popovici, D.-M., Balan, T., Rekeraho, A., & Ramos, M. S. (2025). Enhancing Security and Authenticity in Immersive Environments. *Information*, 16(3), 191. <https://doi.org/10.3390/info16030191>,

### 5. Embracing XR System Without Compromising on Security and Privacy

**Reference:** Acheampong, R., Balan, T.C., Popovici, DM, Rekeraho, A. (2023). Embracing XR System Without Compromising on Security and Privacy. In: De Paolis, L.T., Arpaia, P., Sacco, M. eds) *Extended Reality*. Springer. [https://doi.org/10.1007/978-3-031-43401-3\\_7](https://doi.org/10.1007/978-3-031-43401-3_7)

### 6. Cybersecurity Threat Modeling for IoT-Integrated Smart Solar Energy Systems: Strengthening Resilience for Global Energy Sustainability. Sustainability

**Reference:** Rekeraho, A., Cotfas, D. T., Balan, T. C., Cotfas, P. A., Acheampong, R., & Tuyishime, E. (2025). Cybersecurity Threat Modeling for IoT-Integrated Smart Solar Energy Systems: Strengthening Resilience for Global Energy Sustainability. *Sustainability*

## 7. Balancing Usability, User Experience, Security and Privacy in XR Systems: A Multidimensional Approach

**Reference:** Acheampong Rebecca, Dorin-Mircea Popovici, Titus Balan, Emmanuel Tuyishemi, Alexandre Rekeraho, Gheorghe Daniel . "Balancing Usability, User Experience, Security and Privacy: Multidimensional Approach".International Journal of Information Security2025

## 8. Sandbox Integrated Gateway for the Discovery of Cybersecurity Vulnerabilities

**Reference:** A. Rekeraho , T. Balan, D. T. Cotfas, P. A. Cotfas, R. Acheampong and C. Musuroi, "Sandbox Integrated Gateway for the Discovery of Cybersecurity Vulnerabilities," 2022 ISETC, Timisoara, Romania, 2022,pp. 1- 4, doi: 10.1109/ISETC56213.2022.10010327

## 9. Online Laboratory Access Control with Zero Trust Approach: Twingate Use Case

**Reference:** E. Tuyishime, F. Radu, P. Cotfas, D. Cotfas, T. Balan and A. Rekeraho , "Online Laboratory Access Control with Zero Trust Approach: Twingate Use Case," 2024 16th ECAI, Iasi, Romania, 2024, pp. 1-7, doi: 10.1109/ECAI61503.2024.10607562

## 10. Security Scenarios Automation and Deployment in Virtual Environment using Ansible

**Reference:** R. Acheampong, T. C. Bălan, D. -M. Popovici and A. Rekeraho , "Security Scenarios Automation and Deployment in Virtual Environment using Ansible," 2022 14th (COMM), Bucharest, Romania, 2022, pp. 1-7, doi: 10.1109/COMM54429.2022.9817150

## 11. Photovoltaic Mini-Panel and Thermoelectric Generator Under Concentrated Light

**Reference:** D. Tudor Cotfas, P. A. Cotfas, A. Rekeraho and M. Madhiarasan, "Photovoltaic Mini-Panel and Thermoelectric Generator Under Concentrated Light," 2022 (ISETC), Timisoara, Romania, 2022, pp. 1-4, doi: 10.1109/ISETC56213.2022.10010280

## 12. Scalable Secure Platform for XR

**Reference:** Rebecca Acheampong, Bogdan Valentin Floricescu, Ionut Alexandru Oprea, Alexandre Rekeraho , Vladut Gabriel Anghel, Gabriel Danciu, Ioana Corina Bogdan, George Stefan Ionesc. Scalable Secure Platform for XR, EEITE 2025

## SKILLS

IoT Security, Cloud Security | Threat hunting and Incident management | SIEM tools: AlienVault SIEM (USM Anywhere), Trend Micro Vision One and SOAR, Microsoft Sentinel | Endpoint security: SentinelOne, Microsoft Defender, Kaspersky, CrowdStrike | Python, PowerShell, LabView, HTML5, CSS, PHP | Leadership Skills.

## REFERENCE

**Prof. Dr. Daniel Tudor Cotfas - Transilvania University of Brasov- dtcotfas@unitbv.ro**

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