



Giorgi Akhalaia

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WORK EXPERIENCE

 **ILIA STATE UNIVERSITY – TBILISI, GEORGIA**

ASSOCIATE PROFESSOR OF COMPUTER SCIENCES (AFFILIATED) – 04/02/2025 – CURRENT

 **ACQUIN – BAYREUTH, GERMANY**

ACCREDITATION COMMITTEE EXPERT – 04/09/2025 – CURRENT

 **INSTITUTE OF EARTH SCIENCES AND NATIONAL SEISMIC MONITORING CENTRE, ILIA STATE UNIVERSITY – TBILISI, GEORGIA**

DIRECTOR – 24/03/2025 – 01/06/2025

 **INSTITUTE OF EARTH SCIENCES AND NATIONAL SEISMIC MONITORING CENTRE, ILIA STATE UNIVERSITY – TBILISI, GEORGIA**

DEPUTY DIRECTOR – 01/01/2025 – 23/03/2025

- Coordination of the Institute's software security direction, security of data exchange and retrieval-maintenance-distribution between departments. Responsible for overseeing cybersecurity across all departments, as well as for both international and local projects.
- Led the technical operations across all departments, ensuring the continuous maintenance of the Institute's critical IT services and infrastructure, including 24/7 monitoring and support of mission-critical systems.
- Actively served as a member of the Institute's Rapid Response Team for emergency response operations.

 **SCIENTIFIC CYBER SECURITY ASSOCIATION – TBILISI, GEORGIA**

CYBER SECURITY LECTURER/RESEARCHER – 01/12/2023 – CURRENT

 **CAUCASUS UNIVERSITY, CAUCASUS SCHOOL OF TECHNOLOGY – TBILISI, GEORGIA**

MAIN SPECIALIST AT CAUCASUS CYBER SECURITY CENTER (REGIONAL REPRESENTATIVE OF BITSENTINEL) – 17/12/2021 – CURRENT

Cyber Security Center is an Official Regional Representative of BITSENTINEL. The goal is to work with CyberEDU programs.

- Develop Cyber Security Direction in CU and SCSA
- Develop New Program for Students
- Do CS Projects
- Providing annual, regional hackatons.

 **CAUCASUS UNIVERSITY – TBILISI, GEORGIA**

ASSOCIATE PROFESSOR OF CYBER SECURITY – 24/11/2023 – 01/09/2025

 **INSTITUTE OF EARTH SCIENCES AND NATIONAL SEISMIC MONITORING CENTRE, ILIA STATE UNIVERSITY – TBILISI, GEORGIA**

HEAD OF GEODESY AND GRAVIMETRY DEPARTMENT – 31/05/2016 – 31/12/2024

- Oversaw all services, projects, and daily operations within the department, ensuring alignment with institutional goals.
- Developed and implemented short- and long-term budget plans for departmental sustainability and growth.
- Managed procurement processes, including project-based and state-funded procurements, in compliance with relevant regulations.
- Directed all administrative functions of the department, including planning and execution of business trips and fieldwork for staff.

- Coordinated staff development initiatives, including training programs and professional qualification enhancements.
- Supervised the development and maintenance of departmental software and hardware infrastructure.
- Conducted continuous (24/7) monitoring and operational oversight of the Institute's GNSS Network.
- Actively served as a member of the Institute's Rapid Response Team for geohazard and emergency response operations.

 **IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY** – TBILISI, GEORGIA

INVITED LECTURER OF CYBER SECURITY – 04/03/2024 – 01/03/2025

 **ILIA STATE UNIVERSITY** – TBILISI, GEORGIA

INVITED LECTURER – 04/03/2024 – 25/05/2024

 **SCIENTIFIC CYBER SECURITY ASSOCIATION** – TBILISI, GEORGIA

TECHNICAL DIRECTOR – 26/09/2022 – 01/12/2023

- Responsible for managing local and international cybersecurity projects, ensuring effective planning, execution, and alignment with institutional and stakeholder goals.
- Also in charge of designing and delivering cybersecurity training programs for corporate clients, government institutions, and diverse target groups, combining theoretical and practical components to strengthen digital security awareness and capabilities.

 **SCIENTIFIC CYBER SECURITY ASSOCIATION** – TBILISI, GEORGIA

CYBER SECURITY TRAINER – 12/09/2021 – CURRENT

 **CAUCASUS UNIVERSITY, CAUCASUS SCHOOL OF TECHNOLOGY** – TBILISI, GEORGIA

ASSISTANT PROFESSOR – 12/07/2022 – 24/11/2023

Teaching Web Penetration Testing and Computer Security to BA Students. Supervising students in doing their BA thesis

 **ORIENT LOGIC** – TBILISI, GEORGIA

CYBER SECURITY TRAINER – 14/07/2021 – 31/12/2022

 **INTERNATIONAL BLACK SEA UNIVERSITY, FACULTY OF BUSINESS AND TECHNOLOGY.** – TBILISI, GEORGIA

INVITED LECTURER – 19/09/2021 – 09/2022

Teaching "Computer Systems Security" and "Ethical Hacking" to Georgian and English Sectors

 **CAUCASUS UNIVERSITY** – TBILISI, GEORGIA

INVITED LECTURER – 13/01/2020 – 12/07/2022

Teaching "Computer Security" and "Web Penetration Testing" to BA Students

 **INSTITUTE OF EARTH SCIENCES AND NATIONAL SEISMIC MONITORING CENTRE, ILIA STATE UNIVERSITY** – TBILISI, GEORGIA

JUNIOR SPECIALIST AT GEODESY AND GRAVIMETRY DEPARTMENT – 12/05/2014 – 30/05/2016

 **INSTITUTE OF EARTH SCIENCES AND NATIONAL SEISMIC MONITORING CENTRE, ILIA STATE UNIVERSITY** – TBILISI, GEORGIA

SEISMIC DATA OPERATOR (NIGHT DUTY) AT SEISMIC DATABASE AND DATA PROCESSING DEPARTMENT – 14/01/2014 – 12/05/2014

● **EDUCATION AND TRAINING**

17/09/2020 – 03/10/2023 Tbilisi, Georgia

PHD OF INFORMATION TECHNOLOGIES Georgian Technical University

- Cyber Security
- 5G Networks
- Machine Learning

Website <https://gtu.ge> | **Field of study** Information and Communication Technologies | **Type of credits** ECTS |

Number of credits 180 | **Thesis** Designing Security Function of 5G Networks using Machine Learning Method

31/08/2016 – 18/12/2019 Tbilisi, Georgia

MASTER OF ENGINEERING IN INFORMATION TECHNOLOGIES Caucasus University, Caucasus School of Technology

Address 0102, Tbilisi, Georgia | **Website** <https://cu.edu.ge> | **Final grade** 3.5 | **Type of credits** ECTS | **Number of credits** 120 |

Thesis Implementation of Cyber Security elements in end users

27/08/2012 – 04/08/2016 Tbilisi, Georgia

BACHELOR: COMPUTER ENGINEERING (MAJOR) HISPANIC STUDIES (MINOR) Ilia State University, Faculty of Natural Sciences and Engineering

Website <https://iliauni.edu.ge> | **Final grade** 97.13 /100 | **Type of credits** ECTS | **Number of credits** 240

28/10/2024 – 28/12/2024 Bulgaria

TRAINING COURSE: CERTIFIED INFORMATION SYSTEMS AUDITOR (CISA) GITA

Website <https://doit.gov.ge/>

16/01/2023 – 13/02/2023 Lansing, United States

MODELING GNSS DATA Michigan State University

Address 48933, Lansing, United States

09/2022 Romania

CERTIFIED TRAINER OF ETHICAL HACKING (WEB PENETRATION TESTING - LEVEL 2) BITSENTINEL / CyberEdu

Website <https://cyberedu.ro/>

08/07/2022 – 13/07/2022

COMPUTER FORENSICS BEST PRACTICES EC-Council

30/04/2022 – 13/05/2022

MALWARE ANALYSIS FUNDAMENTALS EC-Council

Website <https://www.eccouncil.org/>

01/2022 Romania

CERTIFIED TRAINER OF WEB SECURITY BITSENTINEL / CyberEdu

31/12/2020 – 10/03/2021 Bulgaria

EC-COUNCIL CERTIFIED SECURITY SPECIALIST - ECSSV9 New Horizons Computer Learning Center (Bulgaria Office). Examination Center: EC- Council

17/09/2021 – 23/11/2021 Georgia

ETHICAL HACKING Scientific Cyber Security Association

Website <https://scsa.ge>

28/04/2021 – 31/05/2021 Tbilisi, Georgia

ALGORITHMS ON PYTHON Scientific Cyber Security Association

Website <https://scsa.ge>

15/03/2021 – 23/04/2021 Tbilisi, Georgia

PYTHON PROGRAMMING Scientific Cyber Security Association

Website <https://scsa.ge>

2018 – 2019 Tbilisi, Georgia

INTERNATIONAL CONFERENCE ON CYBER CRIME AND LEGAL COMPLIANCE COURSE Cyber Secure Central, Chain Enterprises, Scientific Cyber Security Association, CYSEC and BGI Legal

2018 – 2019 Tbilisi, Georgia

ETHICAL HACKING COURSE Scientific Cyber Security Association

Website <https://scsa.ge>

2016 – 2017 Potsdam, Germany

SEISCOMP3 BASIC COURSE GFZ and GEMPA GmbH – Global Earthquake Monitoring Processing Analysis

2009 – 2010 Batumi, Georgia

IT ESSENTIALS: PC HARDWARE AND SOFTWARE Cisco Networking Academy

2014 – 2015 Tbilisi, Georgia

EIGHT-DAY TRAINING PROGRAM ON THE OPERATION AND BASIC MAINTENANCE OF THE CG-5 AUTOGRAV GRAVITY METER AND GPHONEX GRAVITY METER Scintrex Limited

● **HONOURS AND AWARDS**

03/10/2021

PhD Fund – Shota Rustaveli national scientific foundation of Georgia

Shota Rustaveli National Scientific Foundation's fund for PhD Students. Fund is for doing PhD research/thesis.

- Research topic/Project name: "Security of 5G Network"
- Project Duration: 24 months
- Project Budget: 42 000 GEL

● **PUBLICATIONS**

2025

[An Extended Survey Concerning the Vector Commitments](#)

Authors: Maria Nutu, Giorgi Akhalaia, Razvan Bocu and Maksim Iavich | **Journal Name:** Applied Sciences, MDPI | **Volume, Issue and Pages:** Volume 15, Issue 17, 10.3390/app15179510 | **Publisher:** MDPI

Link <https://www.mdpi.com/2076-3417/15/17/9510/pdf>

2025

[Radio Hacking and Its Impact on Navigation Systems](#)

Authors: Giorgi Tomadze, Ilia Lomidze, Mikheil Kurashvili, Giorgi Akhalaia, Vladimer Svanadze | **Volume, Issue and Pages:** CCIS, volume 2401, pp 120–130 | **Publisher:** Springer Nature Switzerland

Link https://link.springer.com/chapter/10.1007/978-3-031-84263-4_11

2024

[Fortifying the digital fortress: A multi-layered defense strategy with SIEM, mail gateway, and sandbox technologies](#)

Authors: Maksim Iavich, Giorgi Akhalaia, Roman Odarchenko and Ana Imnadze | **Journal Name:** Proceedings of the International Workshop on Algorithms of Data Processing (ADP 2024) | **Volume, Issue and Pages:** Vol-3895 | **Publisher:** ceur-ws.org

Link <https://ceur-ws.org/Vol-3895/paper18.pdf>

2024

[The dark side of Radio Technology](#)

Giorgi Tomadze, Ilia Lomidze, Mikheil Kurashvili, Giorgi Akhalaia and Vladimer Svanadze

Link <https://ceur-ws.org/Vol-3885/paper24.pdf>

2023

[Device Tracking Threats in 5G Network](#)

Publisher: Springer International Publishing

Maksim Iavich, Giorgi Akhalaia, Razvan Bocu

Link https://link.springer.com/chapter/10.1007/978-3-031-28694-0_46

2023

Secure Encrypted Connection on Georgian Website

Write here the description...

Authors: Giorgi Akhalaia, Maksim lavich, Giorgi Iashvili, Dmytro Prysiashnyy, Tetiana Smirnova

Link <https://ceur-ws.org/Vol-3550/short17.pdf>

2023

LOCATING USER IN 5G NETWORKS USING HIGH-BAND

Authors: Giorgi Akhalaia

Link <https://journal.scsa.ge/wp-content/uploads/2023/07/1locating-user-in-5g-networks-using-high-band.pdf>

2022

Location-Based Threats for User Equipment in 5G Network

Authors: Giorgi Akhalaia, Maksim lavich & Sergiy Gnatyuk

2021

Method of Improving the Security of 5G Network Architecture Concept for Energy and other Sectors of the Critical Infrastructure"

Journal: Springer

Authors: Maksim lavich, Giorgi Akhalaia, Sergiy Gnatyuk

2021

Novel Architecture of 5G Network

IVUS2021 - 26th Conference on Information technologies

Authors: Giorgi Akhalaia, Maksim lavich

2023

High-Band Related Threats in 5G Network

Authors: Giorgi Akhalaia and Maksim lavich

2020

Cyber Hygiene Assessment for end users – a case study of Georgia

● **CONFERENCES AND SEMINARS**

04/09/2025 – 06/09/2025 Silesian University of Technology, Gliwice, Poland

13th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications

Role: Chair of the Session

01/04/2025 – 17/04/2025 USA

ABET

- Symposium for ABET Accreditation (California, USA)
- Working on certification programm (Oregon State, USA)

08/12/2024 – 15/12/2024 Washington DC, USA

AGU (American Geophysical Union) Fall meeting

Poster Presentation

10/10/2024 – 11/10/2024 Tbilisi

International Scientific-Practical Conference Telecommunication and Security

Organizer

Link <https://conference.scsa.ge/en/>

11/12/2023 – 16/12/2023 San-Francisco, California, USA

AGU (American Geophysical Union) Fall meeting

Poster Presentation

24/10/2023 – 27/10/2023 Sousse, Tunisia, Africa

Wegener Assembly_ONM tunisia 2023

Talk / Oral Presentation

12/05/2023 – 12/05/2023 Kaunas, Lithuania (online)

28th Conference on Information Society and University Studies (IVUS 2023)

10/11/2022 – 11/11/2022 Buchares, Romania

Speaker at DefCamp 2022

Talk: "Device Tracking Threats in 5G Network"

Link <https://def.camp/speaker/giorgi-akhalaia/>

17/11/2022 – 18/11/2022 Vienna, Austria

Speaker at DeepSec 2022

Link <https://www.deepsec.net/index.html>

22/04/2021 Kaunas, Lithuania

26th Conference on Information technologies - IVUS2021

Oral Presentation: Novel Architecture of 5G Network (Authors: Giorgi Akhalaia, Maksim Iavich)

29/11/2020 Kyiv-Lviv

2nd International Conference on Cyber Hygiene & Conflict Management in Global Information Networks

Oral Presentation: "Secure Connection on Georgian Website" (Authors: Giorgi Akhalaia, Maksim Iavich, Giorgi Iashvili)

11/12/2019 San-Francisco, California, USA.

AGU (American Geophysical Union) Fall meeting

Poster Presentation: „GNSS Network and Velocity Field of Georgia“

07/12/2018 Yerevan, Armenia

30 years after the Spitak Earthquake: Experiences and Perspectives

Poster Presentation: “GNSS Network and Velocity Field of Georgia”

2017 Vienna, Austria.

EGU (European Geosciences Union)

Poster Presentation: “GNSS Network and Velocity Field of Georgia”;

11/2016 San-Francisco, California, USA.

AGU (American Geophysical Union) Fall Meeting

● **LANGUAGE SKILLS**

Mother tongue(s): **GEORGIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C1	C1	C1
SPANISH	B1	B1	A2	A2	A2
RUSSIAN	C2	C2	B1	B1	B1

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

● **PROJECTS**

01/04/2025 – CURRENT

University of Young Penetration Testers

Financing Source: Shota Rustaveli National Science Foundation of Georgia

Role: Coordinator and Trainer

Description:

The project's goal is to develop cyber security skills and knowledge, particularly penetration testing, in Georgian schools, both from a practical and scientific point of view.

Link <https://younghackers.cu.edu.ge/>

20/10/2024 – CURRENT

Post-quantum Digital Signature using Verkle Trees

Financing Source: NATO Programm: Science for Peace and Security

01/10/2024 – CURRENT

Security Education Center for Unified Resilience and Effective Communications (SECURE)

Duration: 3 years

Financing Source: Erasmus+ Capacity building in higher education

Description:

Within the framework of the project, three laboratories will be created in 3 universities of Georgia - the largest quantum laboratory in the region, AI/ML lab, research laboratory of 5G/6G networks. Within the framework of the creation and operation of the laboratory, researchers and staff will work on the development of scientific-practical research and educational courses in the direction of safety. Laboratories will be connected to each other and appropriate coordination will take place. Member universities of the consortium participating from the EU side will provide support to local universities and will be actively involved in both the creation of laboratories and the research process. From Georgia, Caucasus University is involved in the project as the project coordinator in Georgia, on the basis of which the largest quantum laboratory in the region will be created. In addition, the team involved from the Caucasus University will be responsible for the development of the quantum and post-quantum security course and the research of relevant issues in Georgia.

05/10/2024 – 05/10/2024

Personal Data Protection Regulation in Georgia

Organizer: Communications Commission of Georgia

Position: Speaker/Trainer

30/03/2024 – 07/04/2024

Digital Security – Social and Political Challenges

Organizer: GITA and IRI

Role: Trainer

2023 – CURRENT

WISEC Academy - Empowering Women in Cyber Security Through EU Experience

Position: Senior Lecturer

Financing Source: Erasmus+ (Jean Monnet Modules)

Description:

The project's primary objective is to advance excellence in IT education for women, particularly in cybersecurity and data protection, enhance the quality of women's education in Georgia using the EU's best practices, and encourage communication between academia and society. Additionally, the project aims to raise women's understanding of data protection in a broader social context. Within the framework of the WISEC Academy, a comprehensive, intensive learning program will be organised for women from different segments (for students, the general public, and specialists with IT background/education) in the field of cyber security based on the experience of the EU. Cybersecurity trainings will also be held for women from the regions to increase awareness of data security issues

Link <https://wisecacademy.cu.edu.ge/>

2022 – CURRENT

DataSecSchool - Seasonal School of Data Protection Based on EU Practices

Position: Senior Lecturer

Financing Source: Erasmus+ (Jean Monnet Modules)

Description:

The goal of the project is to raise awareness of personal data protection among users. Despite the increased focus on cyber security, unfortunately, the challenges associated with GDPR are still relevant, both for professionals of this profile and for ordinary users. In the framework of the project, the season schools for students, the academic sector, the business sector and online training for the general public will be organised. The events are free of charge.

Link <https://datasecschool.cu.edu.ge/>