

Leonel MOYOU

Lecturer and Researcher

✉ leonelmoyou@gmail.com
📄 <https://onyxm.github.io/leonel-moyou/>
University of Yaounde I
Department of Computer Sciences
Yaounde, Cameroun



Research Interest

My main research area lies at the intersection of steganography and cloud computing, with a particular focus on data privacy. Thus, I study obfuscation techniques that preserve the integrity of cover media to ensure the undetectability of hidden data. In detail, my research interests are :

- Communications security & privacy
- Data obfuscation techniques
- Attack, detection and prevention
- cloud computing

Education

- 2018-2024 **Doctoral Degree**, *University of Yaounde I, Cameroon.*
Title : Steganography Resistant to Secret Detection Through the Preservation of Cover Media Integrity
Goal : Study obfuscation techniques that preserve the integrity of cover media to guarantee the undetectability of covert communications
Advisors :René Ndoundam (Associate Professor, University of Yaounde I) & Alain Tchana (Prof., University of Grenoble Alpes)
Defended : on 27th September 2024.
- 2012-2014 **Master Degree in Computer Science**, *University of Yaounde I, Cameroon.*
- 2010-2012 **Master Degree in Educational Technologies (DIPES II)**, *Higher Normal School, University of Yaounde I, Cameroon.*

Work Experience

Research

- Juin 2022-Sept 2024 **Research intern**, *(during PhD), Post-quantum steganography exploiting cloud computing, MLNS2, Grenoble, France.*
- Juin - Aout 2019 **Research intern**, *(during PhD), Resilience of IT systems in critical real-time application scenarios, IHP lab, Germany.*

Teaching

- 2020 - 2024 **Cyber and Internet Security** , *ICT4D UY1, Cameroun.*
- 2020 - 2024 **Introduction to Software Engineering**, *ICT4D UY1, Cameroun.*
- 2024 **Introduction to Software Engineering**, *ICT4D UY1, Cameroun.*
- 2024 **Computer Forensic**, *ICT4D UY1, Cameroun.*
- 2023 **Introduction to information security**, *ENSET Ebolowa, Cameroun.*
- 2022-2024 **Introduction to cryptography**, *ICT4D UY1, Cameroun.*
- 2016-2017 **Programming in Java**, *Université des Montagnes (UdM), Cameroun.*
- 2012 - Now **High School Teacher**, *Computer Sciences Department, Yaounde, Cameroun.*

Internships

- 2013 **Software Engineer Internship**, *Design and implementation of an accounting management system, ARSEL, Yaounde, Cameroon.*
- 2010 **Network administrator Internship**, *Designing a VPN using MPLS technology, CENADI, Yaounde, Cameroon.*

Publications

International Conferences

- 2024 **Deux Schémas de Stéganographie Textuelles basés sur le codage des couleurs**, *Sadié, Juvet Karnel, Leonel Moyou Metcheka, and René Ndoundam*, ARIMA - Revue Africaine de Recherche en Informatique et Mathématique, 2024.
- 2023 **Two high capacity text steganography schemes based on color coding**, *Juvet K. Sadié, Leonel Moyou Metcheka and René Ndoundam*, Conference on Research in Computer Science - CRI'2023 .
- 2022 **Two secure online steganography schemes based on HTTP request sequences**, *Leonel Moyou Metcheka, Stephane Gael Raymond Ekodeck and René Ndoundam*, African Conference on Research in Computer Science and Applied Mathematics – CARI'2022.

Journals

- 2023 **PQHIDE : A Post-Quantum Steganography System Exploiting Cloud Computing**, *Stephane Willy Mossebo Tcheunteu, Leonel Moyou Metcheka, Herve Tale Kalachi, Rene Ndoundam and Alain Tchana*, IEEE Transactions on information forensics & security, Oct 2024, In Progress.
- 2021 **Distributed data hiding in single cloud storage environment** , *Mosebo Willy, Leonel Moyou Metcheka and René Ndoundam*, Journal of Cloud Computing, Springer : pp. 1-13, 2021.
- 2020 **Distributed data hiding in multicloud storage environment**, *Leonel Moyou Metcheka and René Ndoundam*, Journal of Cloud Computing, Springer : pp. 1-15, 2020..

Service to the scientific community

Reviewing Journal External Reviews : SN Computer Science

Popularization

Nov 2024 **Talk**, *I shared valuable insights during an engaging discussion on coverless steganography in cloud environments*, Krakos team of the LIG.

Research projects and International collaborations

2022-2023 **Post-quantum steganography exploiting cloud computing**, *Alain Tchana*, Laboratoire d'informatique de Grenoble, France.

List of talks

- Nov 2024 **Coverless steganography in cloud environments**, *Krakos Team, LIG, France*, .
- Dec 2023 **Two high capacity text steganography schemes based on color coding**, *Conference on Research in Computer Science - CRI'2023, Yaounde, Cameroun*.
- Oct 2022 **Two secure online steganography schemes based on HTTP request sequences**, *African Conference on Research in Computer Science and Applied Mathematics – CARI'2022, Cameroon & Tunisia*.
- Aug 2019 **Resilience of IT systems in critical application scenarios for real-time security**, *IHP Lab, Germany*, .

Languages, Programming and Tools

- Langages French (*Native*), English (*Middle*)
- Programming Python, Java, C/C++, C-sharp, PHP
- Langages
- Hacking Metasploit, NMAP, Veil Evasion, BeEF
- Cybersecurité Antilogger, meterpreter detection, Cports, Winmd5
- Forensic Autopsy, StegHide, Wireshark, Santoku
- Cryptographie DES, AES, SHA256, RSA, ELGAMAL
- Réseaux Modèle TCP/IP, Adressage, VLAN, Routage
- Modélisation UML/Merise, langage Formel Z
- Systèmes Windows, Kali Linux

Interests

- Leisure football, Gymnastic, Cooking
- Association Co-founder of *JanguiMotch*, an association of Bandenkop people from my village, Gymnastics club member