

**Pierre-Yves Ph. GUERDER, Mr**  
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French nationality  
Clean driving license

## PROJECTIVE

**Cybersecurity** consultant, expert in technical audits (**pentesting**) and **awareness**.  
Strong experience in **fullstack development** (PHP, Python) and Linux.

## LANGUAGES AND IT SKILLS

**English:** work language    **French:** mother tongue    **Spanish:** medium level    **Chinese:** strong bases (oral)

### Cybersecurity

- **Code auditing** (PHP, Java) since 2016, **pentesting**
- **Pipeline tooling: SCA/SAST/DAST**
- **Bug bounty** since 2021
- **CEH Master** certification (2024)

### Involvement in IT projects

- Programming in **PHP/Symfony** (Doctrine, Twig, REST API, JWT) and **VueJs** daily since 2014
- Using **Python** (**Flask**, scripts, **bots**) and **SQLite** on my own projects since 2010
- Mastering Linux since 2003, management of **PHP-FPM**, **Apache**, **MySQL**, **OpenSSH** on production **VM/VPS**
- DevOps: creating **Docker** environments on workstations, **pipelines** and **Bash** deployment scripts
- Involved in open-source software: contributor on **GitHub**, **Wikipedia**, **Wikidata** and translations since 2005

## PROFESSIONAL EXPERIENCE

- Since 2022    **Cybersecurity consultant @ KLEE Group:** security audits (**pentesting**, **source code**, architecture)  
Raising **awareness** in teams (general public, developers), in the company and at clients'
- 2014-2022    Fullstack web developer and CTO at **Spyrit systèmes d'information**.  
Development and maintenance of 40 applications using **Symfony 2/3/4/5/6**, **PHP 7/8** and **VueJS**  
**Agile/SCRUM** sprints, code review. Creating CI/CD **pipelines**. Advanced usage of **Git**.
- 2010-2014    Project (6 months), internship (3 months) and **PhD** (2 years at **IEMN** and 1 year at the U of AZ):  
development and simulations for elastodynamics on CPU/GPU clusters (Fortran, Python, CUDA)
- 2012-2014    **Teachings** in electronics (128 h of lab. for 2<sup>nd</sup> to 4<sup>th</sup> year students) at *École Centrale de Lille*
- Sum. 2011    Google Summer of Code: **MediaWiki parser** in **Python** implemented for the **Mozilla Foundation**
- Sum. 2010    **Google Summer of Code:** improving **MediaWiki** software (object-oriented PHP, MySQL, eclipse)
- 2009-2010    **Gap year in China** (at the *Shanghai Institute of Ceramics – Chinese Academy of Sciences*)
  - Scientific research in nanotechnologies and deposition of active materials in thin layers
- Sum. 2009    IT internship at **EADS-DS:** development in **Java** of a multi-agent system
  - Simulation of a military logistic chain for crisis management (confidential project)
- 2007-2009    **Project management** (2-year project, 300 h, 6-student team), in collaboration with LAGIS
  - Design and development of a mobility-helper system using GPS, WiFi, PHP and C#
- Sum. 2008    **Research internship** in the *Electrical Engineering Department* of the **University of Texas**
  - Two-month study at UT Austin about solar panels and Sun power measurements
- 2005, 2008    Two 1-month internships: database management and cost assessment for a relocation

## EDUCATION

- 2018-2024    Certifications: **Symfony**, **CEH Master**. Self-learning on **Root-Me**, **TryHackMe**. Frequent **Meetups**.
- 2011-2014    PhD at *École Centrale de Lille*, **IEMN** and **The University of Arizona** at Tucson
- 2007-2011    *École Centrale de Lille:* Graduate School in Engineering; graduation in 2011 (**Master's degree**)  
Specialization in "Waves, micro-nano-technologies, telecom" and MSc in scientific research
- 2005-2007    **Classe préparatoire aux Grandes Écoles – CPGE – Lycée Fénelon** (Paris)  
Intensive undergraduate studies in maths and physics for admission to *École Centrale de Lille*
- June 2005    **Baccalauréat "S":** Scientific High School diploma, with highest honours (equivalent to A' level)

## HOBBIES AND COMMUNITY INVOLVEMENT

Own computer projects, bug bounty, photography, genealogy, theology, bioethics and scuba diving (2\* diver)  
Writing reports about my trips (Europe, Asia, USA)

**References available upon request**

## PUBLIC TALKS

### Awareness raising sessions at clients:

- *Cyber show* (90 min) for the general public: demonstration of phishing, Trojan, hardware hacking...
- *Live hacking session* (30 min) for developers: supply-chain attack, pwning a production machine
- Teaching ethical hacking to technical teams (3 h)
- Teaching secure development (2 h): DevSec, Top10 OWASP, project tooling

### International Cybersecurity Forum (FIC 2023):

- The AI war, Live Hacking Session
- Live Forensics

## RESEARCH

### PhD

"Theoretical and numerical study of tunable magnetoelastic and nonlinear phononic crystals"

### Thesis directors:

- Olivier Bou Matar, LIA LEMAC, IEMN, UMR CNRS 8520, PRES Lille Nord de France, ECLille, Villeneuve d'Ascq
- Jérôme Vasseur, IEMN, UMR CNRS 8520, IUFM Nord-Pas de Calais, Université d'Artois, Villeneuve d'Ascq
- Pierre Deymier, *Materials Science and Engineering department, University of Arizona, Tucson, USA*

### Publications

- O. Bou Matar, **P.-Y. Guerder**, Y. Li, B. Vandewoestyne, K. Van Den Abeele, *A nodal discontinuous Galerkin finite element method for nonlinear elastic wave propagation*, J. Acoust. Soc. Am. 131 (5), 3650-3663 (2012)
- **P.-Y. Guerder**, A. C. Deymier-Black, N. Z. Swintek, J. O. Vasseur, O. Bou-Matar, K. Muralidharan, P. A. Deymier, *Multi-phonon scattering processes in one-dimensional anharmonic biological superlattices: understanding the dissipation of mechanical waves in mineralized tissues*, Journal of the Mechanical Behavior of Biomedical. 37, 24-32 (2014)
- **P.-Y. Guerder**, S. Giordano, O. Bou-Matar, J. O. Vasseur, *Tuning the elastic nonlinearities in composite nanomaterials*, J. Phys.: Condens. Matter 27 (2015) 145304

### Congresses

- O. Bou Matar, **P.-Y. Guerder**, Y. Li, *Une méthode Galerkin discontinue nodale pour la propagation non linéaire d'ondes élastiques fonctionnant sur carte graphique (GPU)*, XIIèmes Journées d'Acoustique Physique Sous-Marine et Ultrasonore, JAPSUS 2011, Lille, 8-10 juin 2011.
- O. Bou Matar, **P.-Y. Guerder**, *Nonlinear elastodynamic simulations using a Discontinuous Galerkin method on graphics processors*, Acoustics 2012, Nantes, 23-27 avril 2012.
- O. Bou Matar, **P.-Y. Guerder**, H. Zhou, V. Aleshin, *Nonlinear elastodynamic simulations using the discontinuous Galerkin finite element method on graphics processors*, 18th International Conference on Nonlinear Elasticity in Materials, ICNEM XVIII, Ascona (Suisse), 2013

### Teachings

- Lab. work (128 h in Fall 2012 and Spring 2014) :
  - Waves, for 2nd year students, at ITEEM
  - Solid Physics, for 3rd year students, at *École Centrale de Lille*
  - Electronic Systems, for 4th year students, at *École Centrale de Lille*
- Project management (Spring 2012) :
  - Development of a module for digiKam (KDE software), cooperation with INRIA and Master 1 students