Cédric Bonhomme

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Objectives

A position in the field of computer science with special interests in security applications, privacy and software.

Experience

LUXEMBOURG HOUSE OF CYBERSECURITY   2017 - PRESENT
formerly known as SECURITYMADEIN.LU

Involed in the various activities of a CERT with the CIRCL.lu team.

Contributions to various open source projects such as:
MONARC, MOSP, Fit4Cybersecurity, MISP.

Provided numerous trainings (on site and remote).

LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY   2009 - 2017
R&D ENGINEER

Android reverse engineering visualization (malware identification)
- model injection and visualization capabilities;
- the metamodel is build based on a Protobuf schema file (using a PEGJS grammar).

Development of a shelter database management platform for the Red Cross
(`https://github.com/rodekruis/shelter-database`).

Development of a SaaS technology watch solution based on Flask, MongoDB and Gevent.

Participation in the MICIE European project.

Participation in the WiSafeCar project
- analysis and design of a solution based on Multi-Agent Systems with SPADE (Smart Python Agent Development Environment).

Participation in the BUGYO Beyond European project with the following objectives:
- analysis of the evolving nature of the policy of security of critical infrastructures;
- propose various scenarios of implementation for measuring levels of assurance;
- implementation of a solution for BUGYO Beyond with JADE (Java Agent DEvelopment Framework).

Computer skills

Programming language:
- depth knowledge : Python, C, Bash;
- good knowledge : JavaScript, C++;
- intermediate knowledge: Ojective Caml, Go, Rust, PHP, Java, Perl;
- basic knowledge: Haskell.

Descriptive language:

- HTML 5, XML;
- LaTeX.

Systems:
- good knowledge : GNU/Linux;
- system used : OpenBSD;
- virtualization : Xen, VMware ESXi, KVM (Kernel-based Virtual Machine).

Cryptography & Security:
- study of RSA (Python implementation) and ElGamal;
- hybrid cryptography (PGP), PKI;
- knowledge of network related protocols (TCP/IP, BGP, OSPF, DNS);
- knowledge of network security (including remote access security).

Risk management:
- study of the security standards: ISO/IEC 2700x, ISO/IEC 15408;
- security analysis with MONARC.

Publications

M Fabien, B Cédric, R Juan, L Jérôme, J Benjamin, "Risk Assessment Optimisation with MONARC", hack.lu, October 2018.

C. Bonhomme, G. Arnould, D. Khadraoui, "Dynamic Carpooling Mobility Services based on Secure Multi-Agent Platform", in Global Information Infrastructure and Networking Symposium 2012 (GIIS'12), Choroni, Venezuela, December 2012.

M. Ouedraogo, H. Mouratidis, A. Hecker, C. Bonhomme, D. Khadraoui, D. Preston, "A New Approach to Evaluating Security Assurance", in 7th International Conference on Information Assurance and Security, Melaka, Malaysia, December 2011.

G. Guemkam, C. Feltus, P. Schmitt, C. Bonhomme, D. Khadraoui, Z. Guessoum, "Reputation Based Dynamic Responsibility to Agent Assignement for Critical Infrastructure". IAT 2011: 272-275

C. Bonhomme, C. Feltus, M. Petit, "Dynamic Responsibilities Assignment in Critical Electronic Institutions - A Context-Aware Solution for in Crisis Access Right Management", in Proceedings of the The sixth International Conference on Availability, Reliability and Security ("ARES 2011 - The International Dependability Conference"), Vienna, Austria.

G. Guemkam, C. Feltus, C. Bonhomme, P. Schmitt, B. Gâteau, D. Khadraoui, Z. Guessoum, "Financial Critical Infrastructure: A MAS Trusted Architecture for Alert Detection and Authenticated Transactions", in Proceeding of the Sixth IEEE Conference on Network Architectures and Information Systems Security (SAR-SSI 2011), La Rochelle, France.

T. Schaberreiter, C. Bonhomme, J. Aubert, C. Incoul, "Support tool development for real-time risk prediction in interdependent critical infrastructures", in International Workshop on Risk and Trust in Extended Enterprises (RTEE'2010), November 1st - 4th, 2010, San Jose, CA, USA.

C. Bonhomme, C. Feltus, and D. Khadraoui, "Multi-Agent based Decision Mechanism for Incident Reaction in Telecommunication Network" (poster), in Proceedings of the The eighth ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2010), Hammamet, Tunisia.

P. Schmitt, C. Bonhomme, J. Aubert, and B. Gâteau, "Programming electronic institutions with UTOPIA", in Demo Session of the 22nd International Conference on Advanced Information Systems Engineering (CAiSE'10), 2010.

P. Schmitt, C. Bonhomme, and B. Gâteau, "Easy programming of Agent based Electronic Institution with UTOPIA", in the 10th international conference on New Technologies of Distributed Systems (NOTERE 2010), Tozeur - Tunisia, May 31 - June 2, 2010.

C. Feltus, D. Khadraoui, and C. Bonhomme, "Electric blackout prevention: Toward a computer-mediated weather alert broadcasting solution", in International Conference on Society and Information Technologies (ICSIT 2010), pp. 45-50, April 6th - 9th, 2010 – Orlando, Florida, USA.

Education		
	Master SSIC, University Paul Verlaine - Metz	2008 - 2009
	Master 1, University Paul Verlaine - Metz	2007 - 2008
	Bachelor degree in computer science, University Paul Verlaine - Metz	2006 - 2007
	DEUG MIAS (Mathematics, Computer Science and Physics), University Paul Verlaine - Metz	2002 - 2005
	A-levels in science, Majors : Mathematical, Physics. Sarreguemines	2002

Extra-curricular activities

Contributor to some free projects
- contributions through various projects
  `https://github.com/cedricbonhomme`.

Language skills
- French: native language;
- English: read, written and spoken;
- German: average understanding.

Miscellaneous
- driving license category B;
- play piano;
- sports: running;
- hobby: photography.