Thibault Normand

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Application Security Engineer / Full Stack Developer / DevSecOps



Presentation

Passionated technical architect and security engineer, I like to treat projects combining these two skills. My experience in security and development allows me to have a different approach, especially be aware of security issues, in development lifecycle. I'm in permanent technologic exploration, always looking for the "best tool", and better skills to exploit.

Jobs expected: Technical Architect; Full Stack Developer; Technical Expertise; Consulting; Domains expected: Security; Big Data; Machine Learning; BlockChain; IoT;

Professional Experience

N/C [Security Research and Development]

Toulouse - France

Application Security Engineer / Full Stack Developer / DevSecOps

October 2013 -

- Malware alert event protocol for malware detection, and/or IOC reports. (Go, ElasticSearch, RabbitMQ, Protobuf, Snappy, WebHook)
- Maltego transformation services. (Go, Neo4j, ElasticSearch)
- Design and develop a malware analysis workflow for IoC extraction. (Go, RethinkDB, RabbitMQ, Docker, Cuckoo, VirusTotal, Yara, AngularJS 2)
- "Cyber Threat Analytics" for data graph clustering research. (R, Neo4j, ElasticSearch, Machine learning, Clustering)
- Malware exchange protocol for HoneyPots, Sandboxes, and Antivirus. (Protobuf, Compression, Crypto)
- "Technical Threat Intelligence" platform for IoC feeds aggregation. (Go, RabbitMQ, ElasticSearch, Neo4j, AngularJS)
- Malware submission portal service. (Go, RabbitMQ, MongoDB)
- Security advisories portal service. (Go, RabbitMQ, MongoDB, AngularJS)
- Discrete data analysis platform for automated behaviour classification. (Go, RabbitMQ, MongoDB, SciKit-Learn, Machine learning)
- Malware decontamination autonomous service. (Go, AngularJS, Qt, ZMQ, Docker)
- Risk coverage oriented SIEM rules exchange platform. (Go, MongoDB, AngularJS)
- Microservice platform : email(compose, send, sign), autorization / authentification, token generation, licensing (Go, gRPC, Consul, Vault, Docker, Rancher)
-) Dashboards and software metrics monitoring (Go, Prometheus, InfluxDB, ElasticSearch, Grafana)
- Security Code Review (Java / J2EE)
-) Intern mentoring.

INFOTEL [Software Research and Development]

Toulouse - France

Lead Developer / ScrumMaster

January 2010 - October 2013

- High available, legally valuable and secure file deposit platform (RabbitMQ, Protobuf, Scala/AKKA, Java, Spring, ElasticSearch, AngularJS)
- OAUTH 2.0 based SSO services. (Java, Spring, JWT, PKI, PKCS#11, HOTP)
- Javascript application development. (jQuery, Backbone.JS, CoffeeScript)
- Continuous integration. (Git, Jenkins, Sonar)
- Doc as code worflow. (Git, Jenkins, Maven, Docbook5, XSLT, FOP)
- Process management Web interfaces for DB2 / Z/OS. (Java, Portlets)
- Quality and Security Code Review (Java, J2EE)
- Product maintenance. (ClearCase, Java, Struts2, Eclipse RCP)
-) Intern mentoring.

SCASSI Conseil [IT Security]

Toulouse - France

July 2008 - December 2009

Application Security Engineer

- > EBIOS risk analysis based software design. (SOA, J2EE, .Net)
- Risk analysis method generalization (UML)
- Security code review (Java/J2EE, C/C++, PHP)
- Reverse engineering, malware analysis
- SOC Analyst for a local account.
- Teacher for technical courses. (Virtualisation / Firewall and Access Controls)

Intern - Developer

October 2007 - June 2008

- Design et develop an EBIOS related risk analysis tool. (Ruby, RoR)
- Network and System administrator for small enterprise environment.
- Web Application PenTest (from a developer side view).

Opencube Technologies [Numerical Media]

Intern - Developer

Toulouse - France

March 2007 - September 2007

DFXP subtitle format decoding and visualisation API. (Qt, C++)
 Digital Signal Processing for TeleText data extraction. (Linux, C++)

MEDES / IMPS [Health / Space]

Intern - Développeur

Toulouse - France

March 2006 - August 2006

- Geographical Information System (GIS) visualisation component. (Java, Eclipse, RCP)
- OpenSource GIS server enumeration report. (PostGIS, GRASS)
- Network architecture, setted up a 'free' domain controller. (OpenLDAP, Samba, Kerberos, DHCP, DNS, NTP)
- Virtualisation servers (Gentoo, Xen, VMWare)

Karobas [Video Games]

Sophia Antipolis - France *March 2005 - September 2005*

Intern - System and Network Administrator

- Network infrastructure desgin for game servers.
- High Availability and Security.
- Exchange 2003 Domain and Mail Services.
-) Database system migration, and software impacts.
-) Interactive 3D world designs (Virtools)

Nice-Antiques.com [Art / Antique]

Intern - WebMaster

) Commercial referencing campaign optimization.

Design and develop a dynamic website. (PHP / MYSQL)

March 2004 - July 2004

Nice - France

Education

IUP ISI	Toulouse - France
M2 ISI - Métamodélisation et Temps réel critique	2007 - 2008
Métamodélisation UML, J2EE, Programmation temps réel (ADA, C, SCADE), Droit	
M1 Ingénierie des Systèmes Informatiques (ISI)	2006 - 2007
UML, Programmation distribuée (Java / J2EE, C), Base de données (avancé), XML, Mathématiques, Gestion	

L3 Ingénierie des Systèmes Informatiques (ISI)

UML, Programmation (Java, C++), Base de données, Mathématiques, Gestion

2005 - 2006

IUT InformatiqueNice - FranceLicence Professionelle, Administration des systèmes et des réseaux (ASR)2004 - 2005

Réseau, Administration système (Unix, Windows) / base de données (Oracle), Mathématiques, Gestion, Droit

DUT Informatique, Génie Logiciel 2002 - 2004

Réseau, Base de données, C, Java/C++, Programmation système, Mathématiques, Gestion

Lycée A. Camus Fréjus - France

Bac S Sience de l'ingénieur, Spécialité Mathématiques

Mathématiques, Electronique, Mécanique, Informatique

- 2002

Certifications

MCP MS72-215 - Microsoft Windows 2000 Server

Languages

- › Français: Langue maternelle
- Anglais: Lu, Ecrit & Parlé
- > Espagnol: Niveau bac

Skills

Functionnal

Project Management / ScrumMaster; Meeting management; Pedagogy / Popularizaion; Scienfitic publication writeup; Public talks; Technology Watch;

Languages

Go; JavaScript / ES6; Java; Ruby; Python; XML / XSLT; XML Schema / Relax NG; XSL-FO; Qt / KDE; C# (.Net); ASM (x86, ARM7); Scala; C/C++; PHP; ASM (x86, ARM7); ASM (x86, ARM7); Scala; C/C+++; PHP; ASM (x86, ARM7); Scala; C/C+++; PHP; ASM (x86, ARM7); Scala; C/C+++; PHP; ASM (x86, ARM7); ASM (x86,

Databases

MongoDB; RethinkDB; CouchDB; CouchBase; Redis; Neo4j; MySQL / MariaDB; PostgreSQL; Hadoop / HBase; Oracle; SQL Server;

Operating Systems

Linux (Daily usage : ArchLinux); MacOS X; Windows;

Development Environment

Git / Mercurial; SVN / CVS; CMake; VisualStudio;

Web Framework

Node.js / Express; MeteorJS; Ruby on Rails; Django; Play! Framework; Microformats;

Frontend / UX

ES6 / ES7 / TypeScript; AngularJS 1 / 2; React / Flux; RxJS; CoffeeScript; Backbone.JS; Grunt / Gulp / WebPack; HTML5; CSS3 / SASS / LESS; Twitter Bootstrap; Google Material Design;

DevOps

LXC / Docker; Chef / Puppet / Ansible / SaltStack; Logstash / Fluentd / Graylog; Sentry; Consul / Etcd; Vault; Jenkins / TravisCl / DronelO / GitlabCl; Kubernetes / Deis; CoreOS / Rancher; Prometheus / Gafana; Riemann.io;

Data Engineering

Machine Learning (SVM, PNN, RF, GBM); H2o; SciKit Learn; Protégé; R; Python / Jupyter / Pandas; Qlikview; Maltego; ElasticSearch / LogStash / Kibana (ELK); Linkurious;

Security

Cuckoo Sandbox / VMCloak; Suricata / Bro / OSSEC-HIDS; Honeypots (Cowerie / Kippo); DNS / SMTP Sinkhole;

BlockChain

Ethereum;

Embedded

Raspberry PI 2 / 3; Raspberry PI 1 / Zero; Basic electronic knowledge;

Java

J2EE; Spring (Core, MVC, Security, Data); Ant / Maven / SBT / Gradle; JPA / Hibernate; JUnit / TestNG; JBoss AS / Tomcat; Apache Storm; Apache Spark; Apache Kafka; Zookeeper;

Links

-) Blog
- › LinkedIn
-) Github
- > Twitter

Other activities

- > Batterie depuis Septembre 2013
- Saxophone depuis l'âge de 11 ans dont 6 ans en conservatoire
- Veille technologique (Sécurité, Logiciels, Techniques de management, Neurosciences)