

**FREELANCE IT SPECIALIST - CONSULTING, RESEARCH & DEVELOPEMENT**

*SCOUR<sup>GE</sup> SARL - [HTTP://WWW.SCOURGE.FR](http://www.scourge.fr)*

*Expertizing Linux, Open source, Telecoms, Embedded Computing, Real Time.*

**ACHIEVEMENTS**

Cryptography Consultant , Leader Telecom, SetupBox.

2013-2014

**Charter : *R&D Management new crypto-system, technical strategist and project ownership/partnership referrer***

- **R&D support & guidance , follow-up**
- **Cryptography system modeling and designer, Cryptanalysis**
- **SIMD architecture engineering**
- **Crypto API Specifications**
- **Existing analysis, documentation**
- **Cryptosystem Benchmarking & Optimization strategist**
- **Cryptosystem Portage Ios → Android**

*Environment : CAS, Eclipse NDK, C/C++/ObjC, OpenGL ES /OpenCL, GPGPU, Parallel programming, ARM-A Development*

CANOpen Embedded Designer, Energy, Automatismes Worldwide Leader.

2012-2013

**Charter : *State of the art CAN featured product key-enabler, RTOS advisor & advocacy, subproject ownership in multi-site international team***

- **Need follow-up , existing analysis, documentation**
- **R&D recommandations and reports**
- **Study *DES301 – DES 402*, conformance test, specifications**
- **Design, Integration and Analysis CANOpen stack : iterative proof-of-concept**
- ***CANOpen Virtualization***
- **Testbench Master/Slave, simulation**
- ***Performance synthesis under RTOS Micrium-III***

*Environment : ClearCase/Quest, CAN Manager, C, RTOS Micrium, TI Concerto*

R&D Security Architect, European Leader broadband, SetupBox.

2012

**Charter : *R&D Management new crypto-system, technical strategist and project ownership/partnership referrer.***

- Client framework fiability study, OpenSource methodology
- **Linux cryptography architecture** under IntelCE
- **Study CryptoAPI, DMcrypt : Prototype driver** DMCrypt Hardware SEC
- **R&D cipher performance : Full encryption**
- **R&D GRSecurity & Linux Containers : high-end isolation, rugged security**
- **Testbench UAT, Robustness/Performance**
- Configuration and **revision managment recommandations**
- **Linux infrastructure recommandations**

*Environment : CAS, Linux API, Linux Core, Security, Grsec, Selinux, DMcrypt, IntelCE*

Field Engineer R&D support, Smartphone, Worldwide semi-conductors Leaders.

2011

**Charter : *Detached R&D Partnership, Mobile connectivity key-enabler.***

- **Integration of WL1272/WL1283 ComboChips on MOORESTONE & MEDFIELD platforms.**
- **ShareTransport and MCP portage OMAP and ATOM**
- Batch Testing UAT , Robustness / Performance upon AC (WIFI,BT,GPS)
- **ELP and PS on WL1283 setups**
- **Delivering process and Android Froyo and Gingerbread codelines synchronization advocacy, recommandations**
- **Bugtracking and CSR main support** towards customer/supplier R&D teams
- **R&D Automation & Industrialization** process related to revision management recommandations

*Environment : Git, C, C++, Java, Android, Kernel Linux, LDD, Intel Atom*

**Charter : Multi-site Project owner (France)**

- Existing DSS Analysis, opensource integration
- **Detailed requirement specifications** in plant/stocks manager « *lightning meetings* »
- **Consulting/Expertise MCD Oracle and Mysql linked to SAP ODI, heavy loads/volumes optimizations**
- **LAMP design and development**
- **Test/production server Deployment**
- **Software engineering consulting, Extensible Core application framework, response time optimization**
- Revision management, continuous intégration, projet ownership, bugtracking
- **Sturdiness Tests and uploading monitoring.**

**Environment : LAMP(Apache2/MySQL5/CSS2&3/PHP5 object), Git, Oracle ODI BW, Trac, Vmware, Design Pattern**

**Charter : R&D management, Code factory methodologist**

- R&D auditor (architecture, projet communcation) for a multi-localized various availaiblity team (a dozen).
- Ownership and change management via projects boards and « *lightning talks* ».
- **Code Factory design and deployment.**
- Expertise on software engineering and development iterations.
- **Releasing Synchronism analysis** due to integrated open source projects considering their communities
- Production Analysis and recommendations for **software distribution traceability**
- **Automation Prototype** of software production and of the validation test framework.
- **Configuration management reorganization** to meet industrial edition process workflow.

**Environment : Maven, C, ASM, Git, Buildbot, Hudson, Agile Process**

**Charter** : *Code factory methodologist*

- *R&D dept.'s (30 persons) software production process Analysis (SPPA) . Reorganization based on ITIL principles.*
- **Audits on code revision management (SCM, software code management), and configuration management (SCM, software configuration management), and on the industrialization process (code factory).**
- **Ownership and process/quality/technical interviewer of team leaders (6 persons).**
- **Recommendations to Integration service (5 persons) in a Lean-Manufacturing perspective.**
- Usage of Stand Meetings, Techs-Stories.

*Environment : Git, SVN, Mercurial, ISO9001, CMMI*

**COACH / TRAINER ACHIEVEMENTS**

Coach Trainer « Empowering Developers » Linux Realtime Embedded System in R&D context.  
2008-2012

- Seminar trainer for NéoSoft University Embedded Linux
  
- Rencontre Mondiale du Logiciel Libre Lecturer « Aspects R&D FLOSS » (Free Libre Open Source Software)
  
- R&D *Scour*<sup>GE</sup> embedded systems & on demand production instrumentation/automation.  
Project developments around Linux Kernel, Realtime fanless embedded system based on ARM Cortex A8 : embedded distribution metabuilding (« home-grown »), embedded Debian (emdebian) deployment.
  
- Realtime Industrial Embedded Linux Trainer inter/intra companies  
Theory and individual case studies, development tools, cross toolchain & debugging, emulation/virtualization, Kernel and nanokernel, drivers, Real time. Architecture & RT design, RT constraints specifications, licensing & innovation, Co-design based R&D FLOSS , deployment and optimal upkeep.

## **EMPLOYEE CAREER**

R&D embedded engineer, Defense

2007

***Charter : Technical Referrer BSP***

- Experimental methods codifier
- **Retroengineering and technology survey**
- **Firmware R&D** for a interface card based on **DSP Blackfin**
- **Kernel Linux refereeer in order to design drivers**
- **IP telephony dedicated software**

Environment : *VisualDSP, U-BOOT, C, AsmBF, GDB , SIP, Asterisk IP/PABX*

R&D embedded engineer, European Integrator Leader Design center

2005-2006

***Charter : Software development and Board Support Package (BSP) Responsible***

- **Fully integrated solution architecture**
- **Design of a dedicated embedded Linux**
- **Linux Device Driver development**
- Home-grown optimized toolchain setups
- **Firmware design and developement**

Environment : *MetroWerks, U-Boot, Redboot/eCos, Buildroot, OpenEmbedded, LinCan, Busybox, C*

R&D engineer (Trainee), Thin Client Editor SME

2004

***Charter : Autonomous Prospective Research on Free Software firmware BIOS***

- **Design of a replacement bios for 8086 machine**
- Specified a derivated project from father project
- **Project & Community Survey**
- **Technical writer : deployment protocol**
- R&D prospective for company thin client market strategy

Environment : *LinuxBios(now Coreboot), OpenBios, EtherBoot, LOBOS, LTP, Bochs, Linux 2.4/2.6, C, Asm8086*

## **DEGREE COURSE**

**B.SC M.C.A (Microcircuits, Cartes à puces et Applications)-** I.U.T. de Caen. 2004

*Specifications & low level programming in Electronic Banking and Real Time Embedded Computing (Microchips, Smartcards et Appliances).*

Graduation Project: Face recognition & Smartcard biometric authentication.

**D.U.T Informatique-** I.U.T du Havre. 2002

*Computer Analyst/Programmer, double specialization Industrial Systems Computing and Software Engineering .*

Graduation Project: Research cooperation with Laboratoire Informatique du Havre (L.I.H) Phd student on forms recognition, computer vision in a batched industrial processing.

## **LANGUAGES**

**English : fluent**

**German : somewhat good.**

*Systems : **Unix, Linux (Redhat, Ubuntu, Debian, Gentoo)**, iOS, Windows*

*$\mu$ : I8086, M68k, ARM7, ARM Cortex A, PPC8260/70/80, CYGNAL MCS-51, ATMEL, BF-537*

*Techniques : UML, **OMT, Merise**, CVS, CycleV, Extreme Programming (XP), Graphs, Agents.*

*Programming : C/C++, Java, **assembly***

*Script : **Python, Perl**, csh, bash ,Dos batch.*

*Web & DataBase : ACCESS, **HTML, XML, PHP**, MySQL, **Oracle SQL,PL/SQL,SQL\***.*

*AGL et env. prog : Eclipse, VI, GDB/Insight.*

## **INTERESTS**

Ligue de Football de Basse Normandie (LFBN) Official Referee

Scientific and research Literature reader/auditor.