

Alexis Duque

contact

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languages

French mother tongue

♥ Spanish bilingual
English fluency
Mandarin basic

programming

♥ C/C++, Java, JS
Android SDK and NDK
Objective C, Swift
Embedded Linux
STM32 MCU
ARM Cortex M0+, M3
Contiki, RIOT
Angular, Node, Cordova
PHP, Symfony2, Laravel
SQL, Bash, Python
Docker, Jenkins, Agile
Git, L^AT_EX

networks

♥ Network security
Pentest, Forensics
♥ VLC - 802.15.7
TCP/IP - Routing
GSM, 3G, LTE

work experience

- 2015–Now **Rtone** Lyon, France
Research Engineer
PhD. : Visible Light Communications in a Smart City environment
Accurate indoor positioning using a smartphone phone
Working toward Device-to-Device communication using LED lights
- 2014– Now **Rtone** Lyon, France
Embedded Software Engineer
Micro-controller programming:
 - Body-Area-Network development in a sport context
 - Low Power management and optimization
 - STM32, ARM Cortex M0+, M0 and M3
 - TI MSP430.
Bluetooth Low Energy firmware development on Nordic, Bluegiga SoC.
Embedded Linux 3G Gateway: C++, Yocto Project
Mobile Applications :
 - Bluetooth Low Energy
 - iOS SDK using Objective C and Swift
 - Android SDK and NDK
 - Cross-platform using Apache Cordova and Ionic
Web Applications :
 - Evolution and improvement of various Java WebApp (Spring, Hibernate, GWT)
 - OSGI Bundle development for the Eclipse Kura project using Eclipse Equinox.
- H1 2015 **ENTEL, Universidad Politecnica de Cataluna** Barcelona, Spain
Light sensor development for the Ara platform
Research project within the Wireless Network Group, 5 months :
 - Visible Light Communications (VLC) state of the art
 - Development of a VLC front-end for the Google Ara modular smartphone
 - Hardware design and firmware programming in C
 - Android SDK and NDK programming
- 2013– Now **Freelance Developer** Lyon, France
Mobile and Web applications developer
Various mobile and web applications development using technologies such as Java, Java EE, Symphony2, JQuery, AngularJS
Most relevant projects:
 - Meeting reporting Android application for a knowledge management project (TechCico Laboratory, Universit  Technologique de Troyes)
 - Intranet web application enabling energy consumption monitoring in a factory (Michelin Troyes)
 - Web Application allowing fire protection system scaling and planning

education

- 2015–2018 **PhD.** Visible Light Communications in a Smart City environment CITI Lab
INRIA Urbanet Team, funded by Rtone
- 2009–2015 **M.Eng.** in Computer Science and Telecommunications. INSA de Lyon
Fifth year final semester abroad at the UPC-ETSETB, Spain
First two years in Asian international section

interests

professional : technological watch, free and open-source software activist, contributor at OpenMRS, Google Summer of Code 2014 student

sport : duathlon, cycling, athletics (national level)

culture : reading, practicing the classical and electric guitar