FELIPE MAGNO DE ALMEIDA
EXPERTISE SOLUTIONS

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Social

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- Github: `https://github.com/expertisesolutions`
- EFL Git: `https://git.enlightenment.org`

Specialization

- Linux Embedded Systems development with C, C++, Assembly and other higher-level languages
- IoT in Linux, RTOS or bare metal with C, C++ and Assembly
- GUI development in C, C++, JavaScript and Python
- IPTV and ISDB-T/DVB-S development for Set-Top-Boxes
- Distributed systems with high-performance with CORBA and DBus

Presentations

- **Enlightenment Developer Days 2016**—Paris - France
  Promises and EFL Data Model
  EFL JavaScript & C++ bindings
- **CppCon 2015**—Bellevue - WA - USA
  Integrating generators EDSL's for Spirit X3
- **12º National C++ Meeting 2015**—Rio de Janeiro - Brazil
  Developing Graphical Interfaces in C++ using EFL C++ bindings
- **C++Now 2015**—Aspen - CO - USA
  Integrating generators EDSL's for Spirit X3
- **Enlightenment Developer Day 2014**—Dusseldorf -Germany
  EFL bindings for C++ and JavaScript
- **10º National C++ Meeting 2013**—Rio de Janeiro - Brazil
  Interoperating C++ and Java using C++ metaprogramming
- **5º National C++ Meeting 2008**—São Paulo - Brazil
  Creating Embedded Domain Specific Languages for Performance

Projects

- **IoT Home Solution**—
  - C++ development, with GCC, for AVR 8-bit microcontrollers for smart alarm centrals
  - Using CalaOS (`http://www.calaos.fr`) as UI for interacting with the alarm system
- **EFL GUI-library JavaScript binding generator**—
  - Development of a code generator that generates C++ code that integrates the V8 library with the EFL C API
- **EFL GUI-library C++ binding generator**—
  - Development of a code generator that generates C++ code that integrates modern C++11 with the EFL C API

- **Clang pre-condition and post-condition syntax support—**
  - Development, in progress, of Clang suspport for pre and post-conditions to Clang
  - Generation of coq, static assistant proof, code so users can make correctness proofs with the use of a proof assistant with Hoare Logic, or equivalent, theorems

- **Digital TV Interactivity Middleware—**
  - Development of a C++ Middleware to run interactivity systems in Digital TV standards for embedded systems
  - Development of high performance filters in C++ for Transport Streams, DSM-CC implementation and other Digital TV related technologies

- **CORBA—**
  - Development of experimental C++ ORB for high performance while leveraging on Template meta-programming
  - Meta-programming was able to move information from runtime to compile-time, avoiding unnecessary indirections and memory reads for parsing
  - Involvement in develeopment of Authentication and Security System for CORBA standard
  - Protocol for authentication used in brazilian oil companies

- **Mail System—**
  - Development of SMTP libraries for high-performance in C++ using Boost and Asynchronous I/O
  - Development of parsers using EBNF format in Embedded Domain Specific Language in Spirit
  - Actively participated in Boost.Spirit community for years