

Oscar Forner Martinez

I am a C++ software engineer who likes challenges when working in a project, I really enjoy applying advanced algorithms and data structures to solve problems in an efficient and elegant way. Moreover, I am interested in topics such as Linux Kernel and Compilers.

Experience

2015-Present **Software Developer at Programming Research Ltd.**

I have been working in a couple of projects during my time at Programming Research.

-**Static analysis of code:** Checks if the code has some patterns that have an *undefined behaviour*, *unspecified in the Standard*, and/or *implementation-defined*.

-**Dataflow analysis of code:** Checks the complexity of methods, pointer problems, memory handling, etc.

In addition, I had to take over two projects to refactor, maintain and add new features.

2013-2015 **Software Engineer at European Bioinformatics Institute**

One of my duties was to create a RESTful service to allow users to query for information about multiprotein complexes.

In addition, I developed an algorithm to cluster biological information from proteins.

2013-Present **Open Source**

I am actively contributing to open source projects that I find interesting and challenging. Some of my contributions can be found in my [GitHub profile](#).

Linux Kernel: I am interested in topics such as **Scheduler** and **Device Drivers**. I am currently taking the [Eudryptula Challenge](#).

Prefix Tree Comparison: Compare performance for different *Trie*, *Ternary Search Tree* and *Radix Tree*.

ARM C Compiler (ACC): I am creating a **self-hosting compiler** for **C** in the **ARM** architecture.

Courses

April 2016 LFD331: Developing Linux Device Drivers; Linux Foundation

March 2016 LFD320: Linux Kernel Internals and Debugging; Linux Foundation

August 2015 Agile for developers; Accelebrate

Education

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| 2010-2013 | Bachelor of Engineering in Computer Science ; Universitat Jaume I (Spain) <i>Advanced Data Structures, Compilers and Interpreters and Distributed Systems</i> |
| 2006-2010 | Associate Degree in Computer Science ; Universitat Jaume I (Spain) <i>Operating Systems, Real Time Operating Systems and Embedded Systems</i> |

Programming Languages

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|-----------------|--|
| C++ | 3 year experience using C++11/14 and Boost . |
| C | 3 year experience. |
| ARM | A few months of experience. |
| Python and Bash | Good knowledge with scripting purposes. |

Technical Skills

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|---------------|--|
| Methodologies | Design Patterns, Object Oriented Programming/Design. |
| Agile | Scrum, Kanban, Code Review, Pair Programming and TDD . |
| Unit Test | Google Test, Google Mock, Unity and FFF . |
| Libraries | Boost, Protocol Buffers and LLVM . |
| Debugger | GDB, LLDB and Mozilla rr . |
| Build | Make, CMake, Maven and Gradle . |
| CI | Jenkins and Travis . |
| VCS | Git, Subversion and Mercurial . |
| Tools | Cling, Clang-tidy, Clang-modernize, Clang-format, Ctags and Cscope . |
| Analysis | Clang-sanitizer, PRQA Framework, Coverity, Perf and Valgrind . |

Languages

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|---------|--------|
| Spanish | Native |
| English | Fluent |

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