

# Oscar Forner Martinez

---

I am a software engineer who likes challenges when I am working in a project, I really enjoy applying advanced algorithms and data structures to solve problems in an efficient and elegant way.

---

## Education

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

## Experience

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

## 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
- November 2014**      **Algorithms, Part II;** Coursera, Princeton University
- September 2014**      **Algorithms, Part I;** Coursera, Princeton University

## Technical Experience

Open Source	All my personal development is done using and for Open Source. All my collaboration with Open Source projects can be found in my <a href="#">GitHub</a> account.
Agile Methodologies	I have experience working with <b>agile methodologies</b> such as <b>Scrum</b> and <b>Kanban</b> . Moreover, I work using techniques like <b>code review</b> , <b>pair programming</b> and <b>TDD</b> .
Prefix Tree	I created a project to compare the performance in different <i>Prefix Tree</i> such as <b>Trie</b> , <b>Ternary Search Tree</b> and <b>Radix Tree</b> . I used several cutting edge technologies like: <b>C++11</b> , <b>Google Test</b> (for unit test) and <b>Conan</b> (for dependencies manager).
ARM C Compiler (ACC)	I am working on creating a <b>self-hosting compiler</b> for <b>C</b> in the <b>ARM</b> architecture. I started this project to learn properly all the aspects of the <b>ARM</b> architecture and improve my <b>knowledge of compilers</b> .
Linux Kernel	I have been studying the Linux Kernel since the beginning of 2015. First, I read books such as " <i>Understanding Linux Kernel</i> " and " <i>Linux Decade Drivers</i> ". Nowadays, I am taking the <b>Eudpytula Challenge</b> .
Personal blog	I have a personal blog where I write about different topics I think people can be interested in. Usually, it is about new technologies and how to use them or tricks and tips I found out resourceful or important.
Programming Languages	<b>C++:</b> I have been using C++ for several years in different projects and with several technologies. <b>C++11/14</b> and <b>Boost</b> to explore the new features. <b>Google Test/Mock</b> to use it as a unit test framework without big dependencies. <b>Conan</b> as a dependency manager. <b>CMake</b> to build projects. <b>GDB</b> for debugging applications. <b>Perf</b> to measure performance and find bottlenecks.  <b>C:</b> I used C for low level programming, such as <b>Linux Kernel Drivers</b> for Real Time Operating Systems <b>RTAI</b> and to create a new scheduler using the <b>Rate-Monotonic</b> algorithm.  <b>ARM:</b> I am learning the <b>ARM assembly</b> for ARMv8.  Good knowledge of: <b>Python</b> and <b>Bash</b> with scripting purposes.

## Languages

Spanish	Native
English	Working knowledge

---

[oscar.forner.martinez@gmail.com](mailto:oscar.forner.martinez@gmail.com)

+44 (0)75 96944383

<http://maitesin.github.io/>

283A Hersham Road - Walton-on-Thames, KT12 5PZ