

# Florian Rival | Software engineer

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## Experience

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### BAM

Paris, France

Software Engineer and Architect

July 2015 - present

Development of mobile applications for iOS and Android.

- Used innovative, cross-platform technologies like Cordova, React or **React Native** for developing the apps.
- Developed native (Java and Objective-C) modules for React Native and integrated Cordova into existing native apps.
- Development of the associated backends using **Node.js**, Redis, PostgreSQL and Hapi.
- Heavy use of Lean and agile (Scrum) methodologies to drive all the projects.

### Gladeye (Internship)

Auckland, New Zealand

Fullstack Developer

February - July 2015

Co-developed the backend of the Auckland International Airport mobile application (using **PHP** and **Laravel 5**) and took part in the development of the mobile application (hybrid application using **HTML5** and **Cordova**).

- Created the **internal logic** to watch changes in flights, serve and normalize data aggregated from different APIs, trigger push notifications.
- Created test suites (using **PHPUnit**) to cover most of the backend services.
- Coded a complete API explorer with **Node.js** and **React** to send requests to SOAP or REST APIs.
- Developed modules for the mobile application, in particular a **complete caching system** to speed up application rendering.

### Theodo (Internship)

Paris, France

Agile (Scrum) Web Developer

Summer 2014

Developed a new module and rewritten legacy parts of a *Social Media Monitoring* application using Backbone.js, Handlebars, Browserify, TDD with Karma, Grunt and Chai, Continuous Integration with Jenkins.

## Skills

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### C++

8 years of experience through personal projects.

STL, Boost, TinyXml, wxWidgets, LLVM

CMake, Design patterns, C++11

### Javascript

Only the good parts!

React, Angular.js, Node.js, Express, Hapi, MongoDB,

CouchDB, Emscripten, Grunt, Gulp, Chai

### Game design

Pixi.js, Cocos2d-JS, SFML, Box2D, understanding of game engine architectures and pathfinding algorithms

### HTML5 and CSS3

HTML5 rocks!

Sass, Bootstrap

### Hybrid mobile app development

React Native, Cordova, Crosswalk, Fabric.io with Crashlytics, Java and Objective-C (notions)

### Continuous Integration

Travis-CI, AppVeyor, Debian packaging, Jenkins (notions)

### Analytics

Google Analytics, Keen.io, New Relic

### PHP

Composer, Laravel, Guzzle, Symfony (notions)

**And also:** TDD, Git, C, SQL, GLSL (notions),  $\LaTeX$ , SOAP (notions), DevOps (Apache, Nginx) (notions)

**I'm interested in:** Go, WebGL, Web components, beautiful algorithms, agile and lean approaches, any innovative project

## Education

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Ensimag (Superior National School of Applied Mathematics and Computer Science)

Grenoble, France

M.S. Computer Science - Information Systems Engineering specialization

2012-2015

Lycée Alain-René Lesage

Vannes, France

Preparatory courses (intensive study of mathematics and physics)

2010-2012

## Languages

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**English** (full professional proficiency) and **French** (mother tongue)

## Personal projects

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### GDevelop.....

A complete game creation software requiring no coding skills that I've been developing since 2008. It can be used to create **HTML5** and **native** games for Windows, MacOS and Linux. Users can design their games using the graphical interfaces, and create in particular the logic of these games using the events system. It was developed in **C++** and **Javascript**, is **open source** and available on GitHub.

- Designed the entire game engine and implemented both a **C++** and a **Javascript** version of it using **SFML** and **Pixi.js**.
- Developed lots of features including a pathfinding engine, a complete platformer engine, support for particles, physics engine and dynamic lightning, implemented a powerful collision detection algorithm.
- Written a **code generator** and parsers that transpile the events into C++ or Javascript.
- Developed the website and maintained the forum and the wiki, leading GDevelop to be downloaded almost **4000 times** each month.
- Setup translations using gettext and Crowdin.com, enabling the software to be translated into **6 languages** and the website into **9 languages**, thanks to its community.

I've given a talk about GDevelop at **HTML5 Game Jam Paris**, explaining how it can be used to quickly prototype games.

See GDevelop website and download it on [www.compilgames.net](http://www.compilgames.net)

### GDevApp.....

An awesome, super-powerful webapp that allows to create HTML5 games directly from your browser. It was built with **Node.js**, **Angular.js**, uses **MongoDB** and is powered by GDevelop engine compiled from C++ to JS using **Emscripten**.

- Developed the first version in **3 weeks** with 2 teammates.
- Written the port of GDevelop to Javascript using **Emscripten**.
- Developed the module to export the **HTML5** games and package games for Android with **Crosswalk**.
- Developed large parts of the backend and the frontend, including the events and scene editor.

I've given a talk about GDevApp at **Node.js Paris**, using it as an example of how to create a powerful webapp that is based on a native applications and libraries written in C++.

Try the magic on [gdevapp.com](http://gdevapp.com)!

## Various interests

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**I like:** Sciences, Skiing, Party, Turing completeness, Climbing, Sublime Text, French fries, Deus Ex, Gödel's incompleteness theorems, Tomb Raider, His Dark Materials, Horror movies, Lots of other video games, Attending or speaking at conferences, Making lists of things

**I've read:** lots of computer science related books (*[More] Effective [Modern] C++*, *Exceptional C++*, *JavaScript: The Good Parts*, *Best of Game Programming Gems*, parts of *The Art Of Computer Programming*)



Shiny QR code to my homepage