

Florian Rival | Software engineer

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Experience

BAM

Paris, France

Software Engineer and Architect, Deputy CTO since mid-2017

July 2015 - present

Development of mobile applications, for iOS and Android, and backends.

- Development of cross-platform apps, mainly with **React Native** and React.js, Redux, Jest, Flowtype.
- 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**, Spring Boot or Django, Redis, MySQL/PostgreSQL/Oracle.
- 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

C++

10 years of experience through personal projects.

C++14, CMake, STL, Boost, TinyXml,

wxWidgets, LLVM, Design patterns

Game design

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

Analytics

Google Analytics, Keen.io, New Relic, Firebase Analytics

DevOps

Travis-CI, CircleCI, AppVeyor, AWS (S3, Lambda, EC2, SQS, Route 53), Jenkins (notions)

Javascript

Frontend: React, Angular, Redux, MobX, Jest, Flowtype and backend: Node.js, Express, Hapi, MongoDB, CouchDB, DynamoDB, Emscripten

Mobile development

React Native, native modules in Java and Objective-C, Cordova, Fabric.io with Crashlytics, HockeyApp

Other Frontend skills

styled-components, material-ui, Sass (notions), Bootstrap

Other Backend skills

PHP (Laravel, Symfony (notions)), Java (Spring Boot, Hibernate, JUnit), Serverless.com

And also: TDD, Git, C, SQL, GLSL (notions), \LaTeX , SOAP (notions), Django (notions), Stripe.com

I'm interested in: GraphQL, Serverless architectures, WebGL, Web components, beautiful algorithms, agile and lean approaches, any innovative project

Education

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

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

Personal projects

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 editors, and create the logic of their games using the events system. It was developed in **C++** and **Javascript**, the interface ported from wxWidgets to React, 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 **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.
- Created a **serverless architecture** (based on AWS lambda and S3) for offering services like a one-click Android packaging for games made with GDevelop.

I've given a talk about GDevelop at **HTML5 Game Jam Paris**, explaining how it can be used to quickly prototype games and at **Node.js Paris** and **WebAssembly Paris**, using it as an example of how to create a powerful webapp that is based on a native application written in C++.

Try the webapp on 4ian.github.io/GD or visit GDevelop website on compilgames.net

Lil BUB's HELLO EARTH.....

"Hello Earth" is a retro 8-bit mobile video game featuring Lil BUB, an internet sensation cat. I've created the whole game engine and most levels, using GDevelop. The game features more than a dozen levels, alternating between platform and shooter levels.

- Created and adapted the game engine for iOS and Android using **Cocos2d-JS**.
- Developed versions for Windows, macOS and Linux using Electron and **Pixi.js**.
- Worked to have a demo ready for the **Kickstarter project**, which finally raised \$148,003.

Talks/conferences/publications

I've given a talk "Bridges to React Native" at **React Native EU 2017** (Wroclaw) and **React Next 2017** (Tel Aviv). I'm currently reviewing a **React Native video course** for Packt Publishing.

Various interests

I like: Sciences, Skiing, Party, Turing completeness, Climbing, 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