



Timothée Jourde

Software engineer

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27 y/o

Fond of computer science and autodidact, I hold a master's degree, and a technical degree in computer science. Throughout my experiences as a software developer, a student, and a strong hobbyist, I have acquired skills in algorithmics and data structures, programming and software engineering; but also in data visualization and development of user interfaces.

Work Experience

- since November 2020* **C++ JUCE MIDI/MPE Windows macOS iPadOS**
Software developer position at Joué Music Instruments, manufacturer of an expressive electronic musical instrument. Development of a native cross-platform musical application working with the instrument: mainly user interface and communication with the device through MIDI.
jouemusic.com/en/pages/joue-play-app
- April to August 2019* **C++ Python Gurobi Linear optimization Bioinformatics**
Final year internship at LaBRI, Computational Biology team (master's degree, second year): implementation, evaluation, and enhancement of a genetic sequences analysis program, whose purpose is to identify among known strains of a bacterium, which ones are present in a biological sample and in which quantities. The genetic material of the sample being sequenced with a high-throughput method.
github.com/timjrd/mrsep/tree/master/src/mrsep.ilp
- June to July 2018* **Haskell AI**
Internship at LaBRI, Formal Methods team (master's degree, first year): design and implementation of a computer player for the Mastermind board game.
github.com/timjrd/mastermind
- June to July 2017* **Scala Scala.js D3.js**
Software developer position at ISPED, ERIAS team: continuation of the previous project, in partnership with LaBRI (see below).
- March to August 2016* **Java Lucene GWT Data mining Semantic Web**
Software developer position at ISPED, ERIAS team: development of an online forums analysis system targeted at spotting medications misuses by the population, with a web visualization application.
- April to May 2015* **C++ OpenGL GLSL Scala Spark Big data**
Internship at LaBRI, EVADoMe team (technical degree): implementation of a massive data visualization application based on parallel coordinates, with a distributed backend infrastructure. This work has provided the basis for a publication (see below).

Education

- 2017 to 2019* Computer science master's degree at University of Bordeaux, software engineering specialisation.
- 2016 to 2017* Computer science bachelor's degree at University of Bordeaux (L3).
- 2013 to 2015* Computer science technical degree (DUT) at Bordeaux University Institute of Technology (IUT).
- 2013* High school diploma, mathematics specialisation (BAC S).

Publication

Joris SANSEN, Gaëlle RICHER, Timothée JOURDE, Frédéric LALANNE, David AUBER, Romain BOURQUI. "Visual Exploration of Large Multidimensional Data Using Parallel Coordinates on Big Data Infrastructure". *Informatics*. 12 July 2017.
www.mdpi.com/2227-9709/4/3/21

Skills

- Rust** Very interested. Good command.
- C++** Interested. Work experience. Good command.
- Haskell** Very interested. Internship experience. Good command.
- Java** Work experience. Good command.
- Scala** Very interested. Work experience. Decent command.
- C** Decent command.
- Python** Internship experience. Decent command.
- JavaScript** Basic command.
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- Linux** Interested. Good knowledge and daily usage.
- Git** Interested. Work experience. Good command.
- Nix/NixOS** Very interested. Decent command.
- CSS/HTML** Interested. Good command.
- Bash** Good command, unfortunately.

Free Software enthusiast, interested by business models involved in open-source. Inquisitive, in-depth computer science knowledge.

Personal Projects

- Haskell AI Generative music Sound synthesis**
Software producing a musical audio stream that is randomly generated (both melodies and timbres). Done from scratch.
github.com/timjrd/automagicsynth
- Haskell Web scraping WebExtensions**
Metasearch engine for online videos. The results are sorted by quality estimation and duration of the videos. A web-based graphical user interface is available.
github.com/timjrd/scrapeaming
- Rust Simulation**
Barnes-Hut N-body simulation on a grid together with a stencil code producing an artistic video. Done from scratch.
github.com/timjrd/stencil-n-body.rs

Languages

- French** Native language.
- English** CEFR B2 (upper intermediate). Daily reading of technical articles and documentation.

Hobbies & Misc.

- Music** Drums, percussion, piano.
- Alpine skiing** Good level.
- Cooking** Vegetarian dishes.

Went to Gabon, Senegal, Japan, United States, New Caledonia, England, Italy, Spain, Belgium.

Driving licence (permis B), have a car.