

# Rémi Tournaire

Born in 1984 – 31 years old  
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## R&D engineer on low-latency C++ software

### Experience

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#### Société Générale - IT R&D engineering on real-time financial market access. 2010-today

C++ developer. Software and system optimization. Technological watch. Focus on real-time/low latency data processing.

#### Grenoble Institute of Technology - Computer science teaching 2007-2010 (during PhD thesis)

Topics: algorithms, compilers, sequential circuits. Levels BAC+1, BAC+3, BAC+4 in ESISAR engineer school.

#### AlphaCreationS - IT Engineer training course Summer 2006 – duration 3 months

Development of an EFP: booking system for boats. Microsoft-oriented environment: ASP, SQL Server + javascript

### Education

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#### PhD in Computer Science – Artificial Intelligence 2007-2010

Thesis in the Laboratory of Informatics of Grenoble on data mining:  
Research about formal and probabilistic approach of taxonomy alignment  
Two international publications (e.g., Journal of Data Semantics)

#### ENSIMAG IT engineer school – Grenoble Institute of Technology (INP) 2004-2007

Topics: theoretical computer science, logic, operating systems, compilers, algorithms, applied mathematics  
Additional Research Master degree in Artificial Intelligence

#### Advanced Mathematics and Physics (CPGE MPSI MP\*) 2002-2004

Maths Sup/Maths Spé, “Computer Science” option – Blaise Pascal High school, Clermont-Ferrand

#### Baccalauréat S – Jeanne d’Arc High school, Clermont-Ferrand 2002

#### National school of music (Grenoble, Clermont-Fd) 1996-2007

Classical drums degree, composition, computer music.

### Skills

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**Development:** software optimization, concurrent programming, real-time constrained programming  
Languages: C/C++, Java, Python, bash/tcsh shell scripting (Other used languages: R, Matlab, SQL, Ada, Pascal)

**System tuning:** low level programming and tuning of GNU Linux/UNIX systems.  
Network parameters tuning, raw Ethernet, kernel bypass technologies  
Experience on **benchmarking** software and hardware (CPU/OS settings, Network cards, software perf for PhD...)

**Artificial intelligence:** knowledge on ontology matching techniques, data mining methods, machine, description logics, and dimensionality reduction

**Computer music:** notions of signal processing, spectral analysis, sound synthesis, musical scales, MPEG compression.  
Experience: pure data, training course on ACROE lab.: sound synthesis based on physical model (Genesis software usage)

**Computer science general knowledge:** algorithms, compilers, databases and graph theory

**Finance technology:** dedicated financial protocols for market data and order passing of most of European markets

**Mathematics:** logic, probability, and probability logic, notions on applied mathematics

**Environment:** Windows, RedHat, GNU Linux, MacOS X, Visual Studio, Eclipse, vim. Protools/Sibelius for music.

**Tools/software:** gcc, clang, valgrind, callgrind profiler, latex, cvs, git, Office

### Miscellaneous

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- Languages: French, professional English (PhD thesis written in English in 2010, TOEIC B2 level in 2006)
- Volunteer in a charity association for the help of homeless people (2012-2015)
- Music club management at the Grenoble Institute of Technology campus (2005-2006)