Frank Rochet – Senior Software Engineer - **Digistory** EURL

🚗 40 years old – Driving license + Car
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SKILLS

2D/3D Graphics
3D Engine,
Image processing,
DirectX, OpenGL,
Shaders HLSL,
Advanced rendering
and special effects: see
also Publications

Languages
C++, C#, Java, Perl
Pascal, Assembler,
Scipt

Source Control
Perforce, CVS

User Interface APIs
MFC, Qt

Extra Skiils
Code optimization and
multithreading
Reverse engineering
Strong debugging skills

LANGUAGES

French
Native

English
Spoken and written

Spanish
Basic

PROFESSIONAL EXPERIENCE

Since 2019
Digistory EURL
- Manager of the company and independent IT and video service provider

From 2012 to 2019
Orange Applications for Business
- Senior Consultant in Technical Assistance at **CORYS**
- Development of 3D train simulators (C++, Perl) on a complex production toolchain
- Integration of complete train simulators (e.g. Eurostar), simulation of communication systems (GSM-R), train speed control systems (in reverse engineering), and 3D modelling on various train simulators for customers worldwide (SNCF, RATP, US FRA, Virgin, Pakistan Railway...)
- Coding and development of algorithms and a satellite data extraction production chain (extraction, filtering, processing, generation...) to semi-automatically generate the 3D worlds of the simulators from multiple data sources (DEM, coverage maps, etc...)

From 2005 to 2011
Eden Games (ATARI group)
- C++ development on the AAA games
  "Alone In The Dark 5" and "Test Drive Unlimited 2" in a team of about 50 programmers.
- Development, design, analysis, optimization of cross-platform C++ code for PlayStation 3, Xbox 360 and PC nuder Visual C++ in a highly multi-threaded object-oriented architecture.
- 3D engine development with special effects (particles, terrain, LOD system, skin / hair rendering shaders, motion blur, light shafts...)
- Link agent with the ARTIS research team (INRIA Rhône-Alpes, now MAVERICK team) various research projects (Real-time indirect lighting) (see *Publications*)

From 2001 to 2004
Metrologic Group
- Development within a team of 25 programmers on 3 sites (Meylan, Cholet and San José) of the 3D measurement and simulation software Metrolog and Silma XG.
- Implementation of 3D metrology algorithms (complex intersections, geometric tolerances...)
- UI design and programming with custom controls (MFC, Win32, ActiveX)
- Redesign of the Metrolog software, in order to make it an SDK and reduce debug times
- Design, implementation and optimization of the Metrolog 3D engine (DirectX 8, OpenGL)

EDUCATION

2004-2005	**INPG/ENSIMAG**	***Master 2 in Computer Sciences (Computer Graphics, Vision and Robotics)***
2001-2004	**Grenoble CNAM**	***DEST System, Network, Multimedia*** *(night school)*
1998-2000	**Grenoble IUT2**	***D.U.T in Computer sciences***

PUBLICATIONS

2010, July : Talk at **ACM SIGGRAPH 2010**. Los Angeles, United States
"A Deferred Shading Algorithm for Real-Time Indirect Illumination"

2009, Junary : Research Report, INRIA, number RR-6855
"Featured-Based Vector Simulation of Water Waves"