Elie TOURNIER
OpenSource Software Engineer

About

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github.com/hopetech
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Programming
C
C++
TCL
MATLAB
LaTeX

Revision control software
Git

Operating system
Linux
Windows

Languages
French : Mother tongue
English : TOEIC 895/990
Italian : Notions

Interests

Open-source, **Graphics**, Compile, Information Communication Technologies, Healthcare, Image processing, Testing.

Experience

01.2017-Now	**Collabora, Cambridge, UK**	Graphics software engineer

- *Creating prototype of a trace testing* **continuous integration** *system for Mesa. Verifying the correctness of the image produce by the OpenGL driver.*
- *Adding a new backend in Virgl3d, a virtual 3D GPU use inside QEMU virtual machines. Implementing* **lowering passes***. Transcompiling Mesa internal IR to GLSL or ESSL.*
- *Adding double precision floating point support on GPU without hardware FPUs. Modifying the* **Mesa compiler** *to add new built-in functions.*
- *Reviewing code from different components of Mesa.*
- *Taking part of discussions the* **Khronos OpenCL Tooling workgroup** *to improve and upstream a SPIRV-LLVM IR translator to LLVM.*

05-09.2016	**Google Summer of Code, Remote**	Student software engineer

Creating a library to emulate **IEEE754** *double precision floating point.*

2013-2016	**Thales Electron Devices, Moirans, FRANCE**	Student software engineer

- *Programming of images quality characterization tools in* **C++***.*
- *Designing and programming, in* **TCL***, automated tests for X-ray detectors.*

04-08.2013	**LPSC, Grenoble, FRANCE**	Technician training

Designing and programming, in LabVIEW, of an optical polarimeter for the nEDM experiment.

Higher Education

2013–2016	**Engineering school**	Telecom Physiques, Strasbourg, FRANCE

Sandwich courses in Health ICT

2011–2013	**DUT Mesures Physiques**	Joseph Fourier University, Grenoble, FRANCE

2-year course in Applied Physics and Measurement Processes – equivalent to a Higher National Diploma,
specialized in Instrumentation Techniques

Presentation

Feb. 2019	**FOSDEM**	Brussels, Belgium

What's new in the GPU virtual world?
Overview of the project and plans for the future.

Oct. 2018	**X.Org Developer's Conference**	A Coruña, Spain

What's new in the GPU virtual world?

Sept. 2016	**X.Org Developer's Conference**	Helsinki, Finland

Implementation of a double floating point library in GLSL 1.30.
Presenting the status of the FP64 emulation library.