# xavierdanaux

Am willing to tear down walls, build bridges, and light fires.

I have no real experience, but lots of energy, a bit of that "vision thing", and I'm not afraid to start from the beginning.

#### Assets

- Soon-to-be mechanical engineer specialized in computational fluid dynamics, with a good legal education.
- Leadership skills.
- Photography and design enthusiast.
- Loves to tackle complex problems.
- Likes practicing adventure sports like skying, rock climbing and scuba diving, and has been a boy scout for five years.
- Open minded and eager to learn.
- Creative with a strong analytical mind.
- World citizen.

### Education

2003-current Master of Science in Mechanical Engineering, Université catholique de Louvain.

 $1^{\rm st}$  year: 82%  $2^{\rm nd}$  year: 74%  $3^{\rm rd}$  year: — (currently being assessed)

2005-current Master of Laws, Université catholique de Louvain.

1<sup>st</sup> year: — (currently being assessed)

2003–2005 Bachelor of Laws, Université catholique de Louvain.

 $1^{st}$  year: 70%  $2^{nd}$  year: 67%

2001–2003 Bachelor of Science, Université catholique de Louvain.

 $1^{\mathrm{st}}$  year: 74%  $2^{\mathrm{nd}}$  year: 76%

#### Master thesis

title On the rheology of entangled polymers

supervisors Pr Christian Bailly and Pr Roland Keunings

description Study of the complex behaviour of viscoelastic fluids, and in particular of entangled polymers. The study is focussed on double-step strain and recoil deformations, comparing experimental data to simulations based on recent microstructural models. Depending on the model used, numerous mathematical tools are used: numerical solving of nonlinear PDEs, stochastic equations, Monte-Carlo simulations, Fourier transforms, . . .

## Experience

april 2004-

Administrator, Alterezo ASBL, Liège.

current Nonprofit association aimed at helping small organizations access modern communication tools via the internet, and promoting the use of open source solutions and open standards.

See www.alterezo.be.

2005–2006 Mathematics tutor, UCL, Louvain-la-Neuve.

Supervision of practical sessions for a mathematical course given to second year engineering

students (course FSAB1104: Numerical Methods).

See www.legat-online.be/b2q1/num.

2004–2006 **Cultural project leader**, *Tchouque-Tschouk Kot*, Louvain-la-Neuve.

Leader of a student home with a cultural project, requiring day to day management as well

as the organization of public events.

See www.organe.be.

1999–2001 **IMO preselected**, SBPMef, Wépion.

Advanced mathematical training, as belgian preselected candidate for the International Math-

ematical Olympiads, selected by the Belgian mathematical society.

See imo.math.ca/belgium.html.

## Languages

French Native

Dutch Near-native Primary education degree obtained in a dutch college

(Sint-Jozefscollege te Sint-Pieters-Woluwe).

English Very good Many journeys in english speaking countries, including the United

States, the United Kingdom and Kenya.

Chinese **Elementary** Following official courses at the "Institut des Langues Vivantes" (UCL),

for the second year now.

# Computer knowledge

OS Linux, Unix, MacOS, Windows

programmation JAVA, C/C++

scientific Matlab, Autocad, Abaqus

web design XHTML, CSS, AJAX

administration Apache, Mailman

desktop OpenOffice, StarOffice, MS Office

scripting PHP, Shell, Ruby

typography LATEX, ConTEXt, Scribus, QuarkXPress

database MySQL, PostgreSQL