

# WIM LEERS

I love all web-related work (except CSS). Since 2008, I've been focusing on WPO (Web Performance Optimization). My bachelor thesis (January—June 2009) was about WPO (specifically: CDN integration). My master thesis (January 2010—June 2011) continued where my bachelor thesis left off: it was about WPO analytics. It uses data mining techniques to automatically pinpoint causes of poorly performing websites.

This piqued the interest of Facebook, and I was offered an internship on their Site Speed team (after rigorous technical interviews). I successfully completed the internship there, with most notably my improved master thesis' code running in production and mining patterns from >100 million samples per day and >1 billion attributes per day.

The best APIs I know of, both in terms of usage and documentation, are the Qt<sup>1</sup> APIs. Everything else pales in comparison. That's why I like C++/Qt, despite aversion to C++ itself.

I'm interested in WPO, performance, UX, data mining, (nano)technology, bionics, all kinds of design (product, web ...), table tennis, juggling and beach volleyball. For reasons I can't explain, I love llamas.



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<sup>1</sup> Qt (<http://qt.nokia.com/>) is a cross-platform application and UI framework.

## FOUR MOST IMPORTANT ACCOMPLISHMENTS

- 1. Interned on Facebook's Site Speed team.** They contacted me for a full-time position (if I'd pass their interviews, of course) due to my prior WPO work (my bachelor thesis and my then ongoing master thesis).  
I proposed to do an internship instead, because I needed to do that to get my masters degree.  
Their technical interviews were not trivial to pass, but thanks to revising, I did pass them. I was honored that Facebook contacted me due to my previous work. I successfully completed the internship and apparently even *impressed* them. Hence I got an awesome full-time job offer.  
  
Needless to say, but I'm extremely proud that I did well at *the* top technology company in the world. It proves all my hard work has not been in vain!
- 2. Becoming a Drupal<sup>2</sup> contributor and an active member of its community** has allowed me to gain a better view on the "world of the web" and my future career. Most importantly, it has allowed me to grow on a personal level, thanks to the DrupalCons I've attended (many of which I was only able to attend because I was granted scholarships based on merits). For example, thanks to these DrupalCons, I've grown far more confident: while I used to have trouble talking in front of 5–10 people, I now easily present to rooms with 100–150 people.
- 3. Finished my bachelor degree with honors, with my bachelor thesis being labeled as a master thesis (and receiving a 19/20 score).**  
The result is used by hundreds of websites today (<http://drupal.org/project/cdn>) and the most important component, a file detecting, processing and syncing daemon (<http://fileconveyor.org/>), is now being used by Symantec for their prototypes.  
Its development was sponsored by The Executive Office of the President of the United States for use on <http://whitehouse.gov> in August 2011.
- 4. Accomplishing #2 while achieving accomplishment #3:** it's not easy to combine school and work and find the right balance. I managed to achieve excellent grades while contributing to Drupal and working on freelance projects. I was only able to achieve this thanks to the discipline I developed and the never-ending striving towards working and communicating more efficiently. I believe I've been able to get to this far thanks to continuous self-analysis.

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<sup>2</sup> Drupal (<http://drupal.org>) is an open source CMS and CMF written in PHP that powers at least 1.5% of the web , including well-known websites such as whitehouse.gov, economist.com, ubuntu.com, etc.

## EXPERIENCE

### SOFTWARE ENGINEER INTERN, FACEBOOK SEP – DEC 2011

**facebook** contacted me in February 2011, thanks to my WPO work on Drupal and for my bachelor and master theses (which was still in progress). I passed the technical interview.

I successfully completed a 12-week internship, during which I helped with the daily matters of the Site Speed Team. However, the focus was on my intern project, which was a generalization of my master thesis: applying pattern mining to data streams. The Site Speed team wanted to use this to detect unknown performance problems & to be notified of problems after pushing new code. It is running in production and is **mining patterns from >100 million samples per day, or >1 billion attributes**. Another team planned to use it for two more projects — this is possible thanks to its generic nature.

### FREELANCE DRUPAL DEVELOPER JUN 2007 – PRESENT

I got involved with **Drupal** in December 2006. After just a few days, I started contributing to Drupal core. Fast forward a few months and I was already accepting freelance work offers.

I've been closely involved with the Drupal community ever since and have made numerous contributions — see my Drupal.org profile: <http://drupal.org/user/99777>. Being a student and a frequent Drupal contributor, I've been given the opportunity to attend several DrupalCons on a scholarship (see “Honors & Awards”). These scholarships are awarded only to those who've contributed sufficiently: the Drupal community is a *meritocracy*.

Speaking engagements:

- FOSDEM 2010
- DrupalCon Paris 2009
- DrupalCon Washington, DC 2009
- FOSDEM 2009

### DRUPAL DEVELOPER, MOLLOM.COM JUL 2008 – AUG 2010

**MolloM** is a smart anti-comment spam solution. It only shows a CAPTCHA when it suspects the user is a spammer. It achieves this through text analysis powered by machine learning. See <http://mollom.com/>. The founder of Mollom is Dries Buytaert, whom is also the founder of Drupal. Mollom is used by Sony Music, Netlog, Warner Bros Records, etc.

I was hired for the first time in the summer after my second bachelor year. Mollom had been operating in private beta for about 6 months and they wanted to launch, but didn't have a subscription system yet.

They hired me to develop a custom, Drupal-based e-commerce and subscription

management platform. In subsequent years, they continued to hire me to add more functionality. Notable requirements were:

- Full testing coverage (unit testing & functional testing)
- Complex AHAH-driven forms that are testable and degrade gracefully

➔ [Also see the letter of recommendation by Drupal founder Dries Buytaert directed to Facebook.](#)

**VOLUNTEER, TEDXFLANDERS** SEP 2010 – PRESENT

**TEDx**Flanders is the local branch of TEDx, of TED fame. At the last TEDx Flanders event (which was broadcast on Belgium's national television website), I was responsible for managing all Twitter activity: making announcements and mediating solutions to technical problems.

**VOLUNTEER, TTK HERCKENRODE** NOV 2005 – PRESENT

I'm a member of the youth committee of TTK Herckenrode (a table tennis club). We organize activities for all members of the club, sometimes just for the youngsters. In particular, I've been organizing team building events for the youth committee.

**PROJECT LEADER, DRIVERPACKS.NET** MAY 2004 – PRESENT

I founded the DriverPacks.net project at the age of 16. It was open sourced in November 2006 (i.e. when starting university studies) and is now maintained by others. Nowadays, I only maintain the website and perform coordination duties. This project packages *all* drivers for a particular category of hardware into a single file, along with added metadata. An application is provided to integrate these 'DriverPacks' with the original installation software, so that all drivers are installed right away. At the age of 16, I wrote this application in the (very crappy) Autolt language, forcing me to figure out how to develop i.a. reusable GUI components. The DriverPacks are being used by many companies, as well as universities and governments: <http://driverpacks.net/well-known-users>.

## EDUCATION

### HASSELT UNIVERSITY, MASTER 2010 – 2011

Master in Computer Science, specialization Databases

#### Results: **top of class**

- Year 1: great honors (81%)
- Year 2: honors (74%, only 43/60 completed) — *internship deliberation in progress*  
*Internship performed after year 2.*
- My master thesis caught the attention of Facebook, Steve Souders (the WPO guru), and many others, even *before* it was completed!  
See <http://wimleers.com/blog/internship-with-the-site-speed-team-at-facebook>.

### HASSELT UNIVERSITY 2006 – 2009

Bachelor in Computer Science

#### Results: **top of class**

- Year 1: great honors (79%)
- Year 2: honors (72%)
- Year 3: honors (77%)
- Highest score for bachelor thesis (19/20); was labeled as a master thesis.  
See <http://wimleers.com/blog/bachelor-thesis-finished>.
- “Trimester-crossing project”: an open source C++/Qt Sudoku game developed in 2008, was marked as a Qt Ambassador project by Nokia in 2011.  
This game is now being developed further by a student at Iowa State University, as part of his Senior Honors Project.  
See <https://github.com/wimleers/sudoku/wiki>.

### VIRGA-JESSE COLLEGE 2005 – 2006

Latin-Math (years 5–6 of high school)

#### Results: **top of class**

### URSULA-INSTITUUT 2000 – 2004

Latin-Math (years 1–4 of high school)

#### Results: **top of class**

Note about Hasselt University’s honor system:

- Great honors:  $\geq 78\%$
- Honors:  $\geq 70\%$

## HONORS & AWARDS

- ✓ December 2011: finished internship, **offered a full-time position at Facebook!**
- ✓ September 2011: **started my internship at Facebook** (on their Site Speed team)
- ✓ August 2011: the **Executive Office of the President of the United States** supported the development of File Conveyor (bachelor thesis) — they want to sync files of whitehouse.gov faster to a CDN than rsync can.
- ✓ July 2011: invited to booking.com offices in Amsterdam to present master thesis
- ✓ July 2011: received the **Computer Science Master Award** from Hasselt University, for my performance during my studies and my contribution to a positive image of the bachelor and master in computer science at Hasselt University (through my open source work and contributions at driverpacks.net, to Drupal and my bachelor and master theses).
- ✓ July 2011: CS master study: completed 2<sup>nd</sup> year with honors (provisionally, internship is yet to be completed)
- ✓ July 2011: master thesis received a 80% score overall!
- ✓ April 2011: **offered an internship at Facebook on their Site Speed team**
- ✓ February 2011: **Facebook contacted me because they were interested in my web performance work**
- ✓ January 2011: **Qt Ambassador award** for C++/Qt Sudoku app developed in 2008
- ✓ July 2010: CS Master study: completed 1<sup>st</sup> year with great honors
- ✓ June 2010: granted a DrupalCon Copenhagen scholarship
- ✓ March 2010: granted a DrupalCon San Francisco scholarship
- ✓ February 2010: presented at FOSDEM 2010
- ✓ September 2009: **presented at DrupalCon Paris**
- ✓ July 2009: granted a DrupalCon Paris scholarship
- ✓ July 2009: **bachelor thesis got highest score, labeled as a master thesis**
- ✓ July 2009: CS Bachelor study: completed 3<sup>rd</sup> year with honors
- ✓ March 2009: **presented at DrupalCon Washington, DC**
- ✓ February 2009: granted a DrupalCon Washington, DC scholarship
- ✓ January 2009: bachelor thesis proposal selected for inclusion in web content of the college textbook “Technical Communications Today”, 2009 edition
- ✓ January 2009: presented at FOSDEM 2009
- ✓ July 2008: CS Bachelor study: completed 2<sup>nd</sup> year with honors
- ✓ July 2007: CS Bachelor study: completed 1<sup>st</sup> year with great honors

## SKILLS

I am a native Dutch speaker and a near-native English speaker. My French used to be excellent. My German is limited to understanding. My Latin has mostly degraded.

- In-depth: WPO, Drupal, PHP, Qt, C/C++, cross-platform C++/Qt apps, Python
- Solid: JavaScript, jQuery, Java, multi-threaded programming, SQL (MySQL, SQLite), XHTML, CSS, Python + C using ctypes, distributed computing, zeroconf networking, multicast networking, database system architecture
- Basics: Raphaël, OpenGL, C#, Haskell, OpenMP, BaSH, JSP, Perl, awk