# **Bert Frees**

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# Professional experience

#### Current job

April 2014 - present:

Software developer, self-employed

I am currently a self-employed software developer. I specialize in XML technologies and accessibility. These are two notable ongoing projects I am involved in:

- I am now lead developer/maintainer for the international DAISY Pipeline<sup>1</sup> project led by DAISY Consortium<sup>2</sup> that I was already involved in during my previous job (see below). I manage a small distributed team of 3 developers. It is a challenge to find a good balance between code maintenance (like dealing with technical debt) and functionality enhancements to keep the stakeholders the consortium members pleased, and this with the limited resources that are available.
- I play a key role as developer in a collaborative project by a group of braille production houses in Europe (The Netherlands, Norway, Switzerland, Finland, Sweden and Denmark) to create a common next-generation braille translator/formatter tool. It is a challenge to consolidate the very diverse requirements into a single system while also keeping it open to others.

#### Previous jobs

March 2012 – Februari 2014:

Software developer, SBS Schweizerische Bibliothek für Blinde, Seh- und Lesebehinderte, Zürich<sup>3</sup>

I worked for the Swiss national library for the blind and visually impaired. SBS both lends and sells books and magazines in a wide range of accessible formats, notably braille, large print, audio books and e-books. For a part of my time, I developed and maintained software for the library's own production department. I worked in a small team of two developers. Most of the work we did was open-source.

For the remaining part of my time, I contributed to the development of DAISY Pipeline<sup>1</sup>, a tool for automated production of accessible materials for people with print disabilities. DAISY Pipeline is a collaborative project maintained by the DAISY Consortium<sup>2</sup>, with numerous organizations participating and contributing to the development. I was part of a team of 6 people.

These two years were a very enriching experience, in which I learned a lot about all aspects of software development and got a taste of a broad variety of programming languages. I had the opportunity to collaborate intensely with others, whereas in my job at K.U. Leuven I was somewhat more independent. Also, it was interesting to see things from a business point of view, as opposed to an academic one.

<sup>1</sup>https://daisy.org/pipeline2

<sup>2</sup>https://daisy.org/

<sup>3</sup>http://www.sbs.ch

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December 2009 – December 2011:

Researcher/developer, Katholieke Universiteit Leuven<sup>4</sup>

I was involved during two years in the European project ÆGIS<sup>5</sup>, a research & development project supported by the European Commission. The ÆGIS project developed open-source software for persons with disabilities, covering the desktop platform, the Web ("Rich Internet Applications") and mobile devices. My main responsibility was the development of two tools — extensions for the open-source office suite OpenOffice.org — that make it possible to validate and improve the accessibility of office documents, and to convert them to alternative formats such as braille.

This project gave me the opportunity to work together with developers and users all over the world, I learned to cooperate and report in an international team, and I got introduced in the open-source community.

### Education

2004-2009

Katholieke Universiteit Leuven<sup>4</sup>

Master of Science in Electrical Engineering – option: Multimedia & Signal Processing Master thesis: "The acoustic window – analysis, transmission and synthesis of 3D audio"

# Publications & presentations

- Frees B., Strobbe C., Engelen J.: *Generating Braille from OpenOffice.org*. In: Miesenberger K. et al. (Eds.): ICCHP 2010, Part I, LNCS 6179, pp. 81–88. Springer, Heidelberg (2010)
- Frees B., Strobbe C., Engelen J.: *odt2braille brings Braille to your Office*. World Congress Braille21. Leipzig, September 27–30, 2011.
- Strobbe C., Frees B., Engelen J.: *Accessibility Evaluation for Open Source Word Processors*. In: Holzinger A. and Simonic K.-M. (Eds.): USAB 2011, LNCS 7058, pp. 575–584. Springer, Heidelberg (2011)
- Strobbe C., Frees B., Engelen J.: *An Accessibility Checker for OpenOffice.org and LibreOffice Writer*. ÆGIS 2nd International Conference. Brussels, November 28–29, 2011.

#### Skills

#### Programming

Proficient in: Java – XSLT – XPath – XProc

Relevant experience: C – Python – JavaScript – Clojure – Go

Basic knowledge: Ruby – Perl – Scala – Lisp – Haskell – Rust – SQL – PHP – LATEX – Matlab

#### Languages

First language: Dutch Professional use: English

I can express myself in: German, French

<sup>4</sup>http://www.kuleuven.be/english

<sup>5</sup>http://www.aegis-project.eu

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## Interests & hobbies

Music collector Sports: football, cycling, running Synthesizer enthousiast Maker/hacker scene Free and open source software<sup>6</sup>

#### Miscellaneous

Driver's license B

Revised: 8 november 2020 http://bertfrees.github.io/cv.pdf

 $<sup>^6 {\</sup>rm https://github.com/sponsors/bertfrees}$