

## PERSONAL INFORMATION

Parents Jos Vrancx, journalist, Greet Wouters, teacher.  
Date of Birth Oktober 14, 1978  
Place of Birth Merksem, Belgie  
Nationality Belgian  
Marital status Single

## LANGUAGES

Dutch Mother tongue  
English Very Fluent speaking, reading and writing  
French Good speaking, reading and writing  
German Notes

## GENERAL INTEREST

Hobbies Mountain biking, fitness, cycling, long distance running, Linux, reading.

## EDUCATION

**2009 Master of Engineering: Civil Electrotechnical Engineer,**  
*Department of Engineering, ESAT, Catholic University Leuven, Belgium* \*.  
Thesis *Development of a parameter free, noise resistant OCR for Latin-Greek manuscripts.*  
Supervisors Prof. Dr. ir. L. van Gool, Prof. Dr. ir. T. Tuytelearts

**2005 Master of Science: Master in biomedical imaging, option Neuroimaging,**  
*Department of Veterinary and Biomedical Sciences, University Antwerp, Belgium* \*.  
Thesis *Reduction of ring artifacts on  $\mu - CT$  images*  
Supervisors Prof. Dr. J. Sijbers, Dr. E. Van de Casteele

**2004 Master in Engineering: Industrial Engineer Electronics,**  
*Department of Engineering, Karel de Grote high school, Antwerp, Belgium* \*.  
Thesis *Tristan: Data aquisition software for a heat treatment production process;*  
Supervisors lic. H. van Hove, ing. P. Mermans

**2001 Professional bachelor electromechanics,**  
*Department of Engineering, Karel de Grote high school, Antwerp, Belgium* \*..  
Thesis *Development of a database application for the registration of process data*  
Supervisors ir. J. Dietens, ing. P. Mermans

---

## WORK EXPERIENCE

My professional experience is mainly situated in project management, technical analysis, IT consultancy, software implementation, process automation and advanced R&D using mathematical models.

### R&D Engineer.

- 2009-2009 The SVM classifiers (Linear and kernel based *Support Vector Machines*) that are implemented in my last thesis possess a extreme good classification rate (up to 85%). This indicates that SVMs could be of interest for the classification of faulty gear boxes. The R&D departement of Hansen would use this technique for bearing error analysis: if it is known what kind of errors can occur, Support Vectors could automatic classify faulty gearboxes. At the time of writing I'm working on preliminary research on the feasibility of this technique, the constraints that it imposes on the input data and how Support Vector Machines can work out the best. We would ultimately implement this artificial intelligence in software which can - based on vibration measurements as an input signal - automatically indicates whether or not a gearbox meets the required test criteria.

### Automation engineer.

- 2006-2008 During studies at the KULeuven mine as I stood - as an automation engineer for the improve the reporting for different types of production data.
- 2005-2006 Despite the large amount of work that accompanied mine biomedical thesis I was recalled in order to develop a program that could measure the impact of heat deformation on gear box axes. This was specifically down to solving a problem by using frequency analysis using DSP techniques. Until mine core in this period included the development and debugging Until mine core in this period included the development and debugging mine of previously written software. <http://www.hansentransmissions.com>
- 2001-2004 During this period I Hansen Transmissions in the project met Tristan. The main work was designing a road map for development, just check and inquire what were the pain points, mathematical formulas to draw the necessary calculations, compilation of database layout & queries, software implementation and finally to the verification and debugging of the results. All this was more than two years full-time work.

---

## SOFTWARE KNOWLEDGE

### Operating Systems

All Microsoft<sup>TM</sup> operating systems, Solaris<sup>TM</sup> Unix, MacOS<sup>TM</sup>, Linux

### Programming Languages

Procedural	C, Perl, Pascal, QBasic
Object-Oriented	Qt4, C++, Java, UML
Visual	Visual C++, Visual Basic, Visual Studio
Shells-Scripts	Bourne, bash, MS-DOS, VBScript, JavaScript
Web	HTML, XML

### Programs

Qt/C++	QDevelop, QtCreator, Eclipse (Qt plugin), Kdevelop, Mono
Java	Netbeans, Eclipse
Database	MySQL, SQLite, Oracle <sup>TM</sup> , MS Access <sup>TM</sup>
Wetenschappelijk	Maple <sup>TM</sup> , MatLab <sup>TM</sup>

### Office

L<sup>A</sup>T<sub>E</sub>X, OpenOffice, Microsoft Office<sup>TM</sup>