

# JOHAN HARDY

## Industrial Engineer

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### EDUCATION

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- 2009 : Master in Engineering Science (Graduated with high honors) - Gramme Institute, Liège, Belgium.  
*Section* : Industrial Science / Industry.
- 2003 : Secondary School Certificate - Collège Saint Joseph, Liège, Belgium.  
*Orientation* : Latin, Mathematics, English and Dutch.

### WORK HISTORY

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- 2009 - today : Spacebel S.A. - Software Engineer.
- 2009 : Internship at Montefiore Institute (Department of Electrical Engineering and Computer Science, University of Liège).  
*Master thesis* : Implementation of the AX.25 protocol aboard the nanosatellite OUFTI-1 (<http://www.oufti.ulg.ac.be>).
- 2006 : Social and technical trainee at the National Railway Company of Belgium (SNCB), Atelier de traction Kinkempois (maintenance of rolling stock), Liège, Belgium.

### LANGUAGES

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- **French** (Mother language).
- **English** – Reading, writing and speaking : advanced.
- **Dutch** – Reading, writing and speaking : school knowledge.

### COMPUTER SKILLS

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Microsoft Office Suite, Telelogic Rhapsody, Eclipse, Papyrus, Jenkins CI, svn, git, Gerrit, Trac, Redmine, VMware, Klocwork.

C/C++, Java, Tcl/Tk, Python, OCL, UML, Acceleo, EMF, Xtext, Xtend, Ruby, markup languages, Mocking.

Solidworks, MatLab, SimuLink, Siemens automation.

Sparc LEON2, LEON3, LEON4, PowerPC, Core8051.

Serial, LAN, MIL-1553, PCI, PUS, CCSDS.

Unix Systems, vxworks, rtems, xtratum.

Eclipse Plug-in development, Oomph, Maven.

### ADDITIONAL TRAINING

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- 2013 : Eclipse Modeling by Olivier Provoust at Spacebel, Liège, Belgium
- 2012 : Xtratum seminar by FentISS at Spacebel, Liège, Belgium
- 2012 : Topcased le résumé at Atos, Paris, France
- 2011 : TargetLink basics for code generation and production in space industry at dSpace, Paris, France
- 2008 : Seminar Espace Horizon Qualité organized by Entreprise & Qualité ASBL at Technifutur, Sart-Tilman, Belgium.

### MISCELLANEOUS

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Belgian nationality.

Date of birth: 13rd november 1985 (Liège).

Marital status: single.

Driving licence owner (since 2004).

Hobbies: soccer, spinning, mountain bike, cinema, music, computer science, electronics, news and politics.

## PROFESSIONAL EXPERIENCE

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2009 – today : Spacebel S.A. - Software Engineer.

- Development and test of PROBA-3 flight software
- Design and deployment of PROBA-3 Unit Test framework
- Deployment of Spacebel Continuous Integration System
- Design and deployment of Spacebel Software Development Environment
- Maintenance of PROBA-2 flight software
- Symmetric Multi-Processing of PROBA-2 flight software
- Radio Frequency Interference of VNREDSAT-1B - Preliminary study
- Time and space partitioning of PROBA-2 Flight Software
- In-flight hosting of prototype application
- TARANIS boot software, definition and deployment of the complete validation test bench
- TARANIS boot software, involved from proposal, architecture, design to validation tests
- Software Validation Facility architecture of Lunar Lander (phase B)
- Assessment and acceptance of model based development tools in the scope of a high integrity autonomous rendez-vous and docking control system for ORCSAT study
- Operational tests of PROBA-V OBSW
- Refactoring of Graphical User Interface of Vega OBC Simulator
- Validation of Vegetation Instrument Manager of PROBA-V
- Simulation of Mass Memory Unit of PROBA-V
- Simulation of Vegetation Instrument of PROBA-V
- Coding & testing of Mass Memory drivers of PROBA-V OBSW
- Support, maintenance, integration, validation & qualification of Expert OBSW
- Coding & testing of Power Conditioning and Distribution Unit of Expert OBSW
- Coding & testing of the Timeline Generator and Post Flight Analysis tools of Expert mission
- Coding of the Functional Validation Facility of Expert (European EXPERimental Re-entry Test-bed)

## PUBLICATIONS

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- 2015 : J. Hardy, A. Bourdoux, D. Torette, P. Parisi, G. Campos Garrido - From napkin sketches to flight software.
- 2014 : J. Hardy, T. Laroche, P. Creten, P. Parisi, M. Hiller - Experimenting maintenance of flight software in an integrated modular avionics for space.

## ECLIPSE FOUNDATION

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- 2015 : Eclipse umlgen project: Author of the UML to Embedded C Generator.
- 2014 : Eclipse Committer.