

Simon Billemont

Curriculum vitæ

Profile

Name Simon Billemont
Date of birth 27 April 1989
Place of birth Ghent, Belgium
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Education

Higher education

- 09/2010 – 01/2014 **Master Space applications, Delft University of Technology**
Completion January 2014
Main courses AE4879 - *Mission Geometry and Orbit Design*
A treatment of many basic concepts used today's in mission planning.
AE4874I/II - *Astrodynamics I/II*
Basic and advanced concepts of classical and modern astrodynamics.
AE4890 - *Planetary Sciences*
Planetary physical sciences and solar system properties.
Thesis subject *Mission design of a low-thrust propulsion mission to the solar poles.*
The main goal is to find the propellant-optimal trajectory for a low-thrust mission to the solar poles using the Q-law, a Lyapunov feedback control law, and compare this against classical high-thrust transfers.
- 09/2007 – 08/2010 **Bachelor Aerospace Engineering, Delft University of Technology**
Space Minor (focus on space systems and applications)
Graduation project Design of a formation of laser altimetry satellites, using micro satellites and single photon counting sensors.

Secondary school

- 09/2001 – 07/2007 **Industrial sciences, EDUGO campus GLORIEUX**
Theoretical education, focusing on mathematics and sciences.

Internships, papers and experience

06/2014 - now **Application Engineer at Newtec**

Employed by Newtec, a satellite communications equipment company. This job focuses on rolling-out projects, performing acceptance tests, doing service interventions/upgrades/maintenance and training customers. Furthermore, assistance to our customers is provided in identifying, following-up, resolving technical issues.

03/2012 - 09/2012 **Internship Centre National d'Etudes Spatiales (CNES : DCT/SB/MS)**

The development of a glue code to make the Java astrodynamics tools Orekit and STELA available under the SciLab environment. Furthermore, comparison of the results generated by Orekit against the existing CNES tools in Scilab and STELA.

06/2010 **Design synthesis exercise (TU Delft)**

Formation of Laser Altimetry Measuring Satellites; mission concept design for a formation flying mission to measure surface altitude and backscatter characteristics using single photon detection equipment.

12/2009 **Space minor case study (TU Delft)**

Validation of ASTER GDEM over Tibet; verify the claimed accuracy of a digital elevation model using ICESAT data as validation reference.

06/2007 **Graduation paper (EDUGO)**

Cryptography; the mathematical basis of some of the most common encryption schemes.

Skills

Computer experience Windows, FreeBSD, Linux (Debian, (X/K)Ubuntu)
MS Word, Excel, PowerPoint, Visio, Project, L^AT_EX/ConT_EXt
DS Catia and SolidWorks

Programming languages Scala, Java, C, C++, unix scripts (sh, bash, awk, sed, ...)
PHP, HTML, CSS, JavaScript
Mathworks Matlab, Wolfram Mathematica, Scilab

Language skills

see <http://europass.cedefop.europa.eu/LanguageSelfAssessmentGrid/en>

	Writing	Reading	Speaking
Dutch	Native (C2)	Native (C2)	Native (C2)
English	Good (C1)	Excellent (C2)	Excellent (C2)
French	Average (B1)	Good (B2)	Above average (B1)

Hobby's Programming (mainly Java, Scala, and C++), started developing my own set of libraries for a broad range of application, most noteworthy is celest, a library used to solve various celestial mechanics problems.

Web design and applications (cf. <http://www.angelcorp.be>)

Electronics (basic analog/digital and embedded devices)