

**keywords:** mathematical modelling, process control, computational fluid dynamics, machine learning, optimisation, chemistry, problem solving

## about

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Belgium

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[LinkedIn](#)

[Github](#)

Driver's licence: B

## languages

Dutch: native language

English: C2 (CEFR)

French: B1 (CEFR)

## additional skills

Computational fluid dynamics

Mathematical modelling

Machine learning

Control theory

LaTeX

## programming

*Working knowledge*

MATLAB/Simulink

Python 2/3

OpenFOAM (CFD)

*Basic knowledge*

HTML/CSS/JS

C++

R

## education

2014–2016	<b>M.Sc. summa cum laude</b> Bioscience engineering <i>Chemistry and bioprocess technology</i>	Ghent University
2011–2014	<b>B.Sc. cum laude</b> Bioscience engineering <i>Chemistry and food technology</i>	Ghent University
2005–2011	<b>GCSE in Math and Sciences</b> 4.2/5 GPA	Royal Atheneum Knokke-Heist

## experience

01/2017 - ...	<b>PhD candidate</b> Model-based optimisation of design and operation of bioreactors with a focus on gas-liquid mass transfer <i>BIOMATH</i>	Ghent University
09-12/2016	<b>Research assistant</b> Mathematical modelling of filtercake formation and fungal growth <i>BIOMATH/KERMIT</i>	Ghent University
08-09/2014	<b>Research internship</b> Computer vision techniques for polymer recognition using atomic-force microscopy images	University of São Paulo

## scriptions

2016	<b>Master thesis</b> Spatio temporal modelling of filtercake formation in filtration processes	Ghent University
2014	<b>Bachelor thesis</b> Innovative applications of artificial intelligence in the food industry	Ghent University

## additional courses

2017	<b>BIOPRO World Talent Campus</b> Intensive course on bioprocess monitoring and optimisation	Denmark
2017	<b>Multi-scale methods for non-reacting and reacting flows</b> Specialist course, doctoral schools	Ghent University

## voluntary work

2009-2014 **Leader youth movement**  
102<sup>e</sup> FOS De Albatros

Knokke-Heist

## projects

2016 **Open Weblides**  
Open-source platform for interactive presentation slides  
*UGent innoversity challenge winner*

Ghent University

2016 **Dewpal: biocatalysed atmospheric condensation**  
iGem: International Genetically Engineered Machine  
Competition

MIT, Boston

**Interactive version:** [bramdejaegher.be/CV.html](http://bramdejaegher.be/CV.html)