

Curriculum vitae

➤ PERSONAL INFORMATION

Family name: Gilis

First name: Jeroen

Nationality: Belgian

Date of birth: 28/07/1994

Personal website: <https://jgilis.github.io>

Researcher unique identifier (ORCID): 0000-0001-8415-0943

➤ EDUCATION

- 2018-current *PhD candidate in data science, Ghent university, Belgium*
Supervisors: Prof. Lieven Clement, prof. Yvan Saeys and Dr. Koen Van den Berge
- 2017-2019 *Master of science in bioinformatics - summa cum laude - Ghent university, Belgium*
Master thesis: Scalable differential transcript usage analysis for single-cell applications, under supervision of Prof. Lieven Clement and Dr. Koen Van den Berge
- 2015-2017 *Master of science in biochemistry & biotechnology - magna cum laude - Leuven university, Belgium*
Master thesis: Modification of TPS1 for increased acetic acid tolerance in second generation bioethanol fermentations, under supervision of Prof. Johan Thevelein
- 2012-2015 *Bachelor of science in biochemistry and biotechnology, Leuven university, Belgium*

➤ FELLOWSHIPS AND AWARDS

- 2019-2023 *Scholarship from Research Foundation Flanders, competitive fund for 4-year research PhD research grants*

➤ Internships

- 2016 *Beer laboratory Delvaux – Topic: Characterization of phenolic acids and enzyme activity in barley varieties used for beer production, under supervision of Dr. Filip Delvaux*

➤ **Software**

Author	<i>satuRn</i> – Scalable analysis of differential transcript usage for bulk and single-cell RNA-sequencing applications, R, Bioconductor
Contributor	<i>isoformSwitchAnalyzeR</i> – Identifying, annotating, and visualizing alternative splicing and isoform switches with functional consequences from both short- and long-read RNA-seq data, added a new functionality to the package to support differential expression tests with <i>satuRn</i> , written in R, available from Bioconductor
Contributor	<i>fishpond</i> – Contains methods for differential transcript and gene expression analysis of RNA-seq data using inferential replicates for uncertainty of abundance quantification, as generated by Gibbs sampling or bootstrap sampling, added a new functionality to the package to support working with Salmon and Alevin quantification files, written in R, available from Bioconductor
Contributor	<i>TENxPBMCDData</i> – Data package that allows for easy access to single-cell RNA-seq data generated with the 10X Genomics technology on PBMC cells, added new a CITE-seq dataset to the package, written in R, available from Bioconductor

➤ **SUPERVISION OF GRADUATE STUDENTS**

2022-2023	<i>Laura Perin, master thesis student, Padova University, Italy</i> Thesis title: Differential detection and differential expression in single-cell RNA-seq data Joint supervision with Prof. Lieven Clement (Ghent University) and Prof. Davide Risso (Padova University)
2021-2022	<i>Tim Meese, master thesis student, Ghent University, Belgium</i> Thesis title: Sub-gene level differential expression analysis for droplet single-cell RNA-seq data Joint supervision with Prof. Lieven Clement (Ghent University)
2021-2022	<i>Dingrongruo Yu, master thesis student, Ghent University, Belgium</i> Thesis title: Differential transcript usage along single-cell gene expression trajectories Joint supervision with Prof. Lieven Clement (Ghent University)

➤ **TEACHING ACTIVITIES**

2018-2023	<i>Teaching assistant</i> – Statistics, semester course, taught to BSc. students in chemistry, biochemistry, biology, geology and biomedical sciences, Ghent University, Belgium
2022	<i>Instructor</i> – Single-cell transcriptomics data analysis, specialist short course, taught to PhD candidates, post-docs and researchers from the life sciences industry, Ghent University, Belgium
2020-2021	<i>Co-instructor</i> – Practical statistics for the life sciences, crash course, taught to graduate students and PhD candidates, Gulbenkian institute, Oeiras, Portugal

➤ **Research visits**

2023 *Research group of Prof. Davide Riso, 3 weeks, Padova University, Italy*

2022 *Research group of Prof. Mark Robinson, group hackathon event, 3 days, Zurich University, Switzerland*