WILLEM VANHULLE

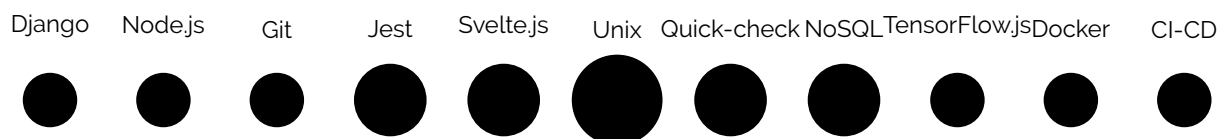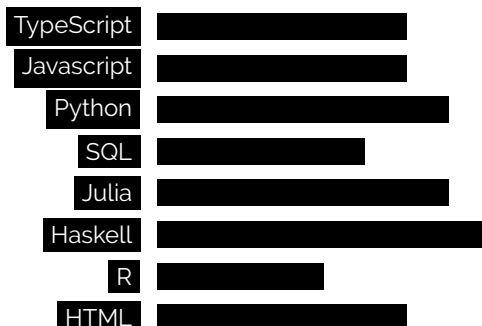## Mathematician

Ghent, Belgium

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github.com/wvhulle

WHO AM I?

Solid knowledge of statistics and neural networks. Independent software and data engineer. Additional knowledge of physics and biotech. Experienced in lecturing mathematics on all levels. Served in several coordinating volunteer roles. Clear, professional communicator.

TypeScript
Javascript
Python
SQL
Julia
Haskell
R
HTML

Django Node.js Git Jest Svelte.js Unix Quick-check NoSQL TensorFlow.js Docker CI-CD

EXPERIENCE

2021 – 2022
full-time

Full-stack Software Engineer **Specialty Carbohydrates Inbiose**
Improves data analytics pipeline of a metabolic engineering lab. Learned biotech. and chemistry concepts. Designed, built backend and frontend for interactive, reactive data-intensive web applications.
`VS Code  /  DBeaver  /  Neo4j  /  PostgreSQL  /  Git  /  Data modelling`

2020 – 2021
part-time

Mathematics lecturer **Adult High-school Volt**
Showed care, gave clear explanations and constructive feedback to foreign students. Wrote software to generate challenging problem sheets.
`Python  /  SymPy  /  LaTeX`

EDUCATION

2019 – 2021

Master of theoretical physics (partial) **KU Leuven, Belgium**
Data mining and deep learning, advanced stochastic Monte Carlo methods, general relativity, particle physics, analytical mechanics, quantum mechanics, solid state physics.
`JavaScript  /  Matlab  /  Mathematica  /  Julia  /  PyTorch`

2017–2019

Master of pure mathematics **KU Leuven, Belgium**
Differential and Riemannian geometry, Riemann surfaces, operator algebras, group theory, algebraic topology, functional analysis.

Thesis: formalisation and verification of topological and algebraic mathematical proofs in a high-level functional programming language.
`Haskell  /  Agda  /  Linux  /  Python`

2013 – 2017

Bachelor of mathematics **VU Brussel, Belgium**
Stochastic processes, commutative algebra, advanced data structures, numerical mathematics, mathematical statistics, databases.
`SQL  /  Java  /  Lisp  /  R  /  Python`

LANGUAGES

English - Professional
Dutch - Native
French - Professional
Chinese - Conversational
German - Conversational

HOBBIES

Long-distance solo backpacking, sci-fi books (Stephenson, Baxter) and social dancing (Forro, Swingrock, Kizomba, Bachata).

NON PROFIT

Helped international students with practical assistance, social events, photography and language exchange. Active on open source software communities.