

ir. Lennart Van Hirtum

Inventor of the wheel

PERSONAL DETAILS

Birth April 3, 1999
Address Donkerstraat 49 Erps-Kwerps
Phone (+32) 478 392509
Mail lennart.vanhirtum@gmail.com

EDUCATION

Ma. Engineering Computer Science AI 2019-2021
KU Leuven *Cum Laude*

Ba. Engineering Sciences 2016-2019
KU Leuven *Cum Laude*

PROFILE

- Strong self-taught programming skills. I've been developing for more than 6 years now. I started out with Java and z80 assembly, later shifting my attention to C++.
- Experienced at developing High-Performance Computing Applications, as well as building GPU and FPGA accelerators.

PROJECTS

Master's Thesis 2020-2021
C++ - Verilog

“A path to compute the 9th Dedekind Number using FPGA Supercomputing”. In this thesis I was able to prove it possible to compute the 9th dedekind number on a modestly-sized FPGA-accelerated supercomputer, a feat never achieved before. Through my extensive knowledge of modern processor architecture I was able to beat the state-of-the-art for computing the 8th Dedekind Number by more than two orders of magnitude in performance. A project computing the 9th is still underway, which we expect to publish early 2022.

Physics3D 2018-2021
C++ - OpenGL

Matthias Vandersanden and I teamed up to build a 3D physics engine, that after 3 years of work boasts an impressive repertoire of features. My focus was the core physics engine itself, while Matthias worked on the graphics and interface.

Founder of uniluc.com 2017-2019
Web development. HTML-CSS-JS-PHP-SQL

Uniluc is a student community with well over 100 members centered around gaming, game hosting and tournaments. I got the team together, set up the server, built the website and publicly presented to advertise the project.

Full Portfolio: hirtum.com/projects

EMPLOYMENT HISTORY

Student Researcher

1 aug 2020 -
30 sept 2020

DTAI - KU Leuven under Prof. Tom Schrijvers

I contributed to the AutBound (<https://github.com/tSchrijv/AutBound>) project as a student researcher and used the tool to generate Haskell code from formal grammars in development at the time. I wrote both formal grammar definitions in AutBound's custom language and Haskell execution code.

SKILLS

<i>Languages</i>	Dutch	(mother tongue)
	English	(fluent)
<i>Programming</i>	C++	(very strong)
	Java	(strong)
	Verilog	(experienced)
	L ^A T _E X	(experienced)
	z80 Assembly	(experienced)
	Python	(adequate)
	Rust	(adequate)
	Haskell	(adequate)
Prolog	(adequate)	
<i>Web</i>	HTML/CSS	(experienced)
	PHP	(experienced)
	JavaScript	(adequate)
	SQL	(adequate)
<i>Software</i>	Visual Studio	
	git	
	Linux	
	Vivado	
	Matlab Mupad	
Eclipse		

AWARDS

Finalist at the Flanders Mathematics Olympiad

2015-2016