

Léon van Velzen

Birthdate: 01-10-1997

Location: Leiden (NL)

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Nationality: Dutch

Willing to relocate: Yes

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WORK EXPERIENCE

ASML - Electron optics software engineer april 2023 - present

- ▶ Worked on a next generation multi beam scanning electron microscope intended for defect inspection in the semiconductor industry
- ▶ Numerical simulation and optimization of MEMS fabricated electrostatic lenses
- ▶ Design, specification and software implementation of machine calibrations
- ▶ Responsible for implementing a realistic machine emulator used to qualify software

Amsterdam Scientific Instruments july 2020 - september 2021

- ▶ Leading developer of a high throughput (6 Gb/s) Timepix3 data analysis pipeline
- ▶ Leading developer of the user interface used by customers to operate the detectors
- ▶ Applied physics internship on data analysis graded 90%

ChannelEngine august 2015 - september 2017

- ▶ Supported a startup to scale and increase revenue by refining the C# software architecture
- ▶ Designed and implemented most of the new (version 2.0) API
- ▶ Integrated third party marketplaces like Bol.com, CDDiscount and Ebay to the platform

EDUCATION

TU Delft - Master Applied Physics september 2020 - july 2022

- ▶ Specialized in physics for instrumentation (nanotechnology)
- ▶ Average grade 85% (for internship see above)
- ▶ [Thesis](#) on SEM aberration correction graded 90% (Pieter Kruit research group) (Hitachi High-Tech collaboration)

Leiden University - Bachelor Physics september 2017 - july 2020

- ▶ Graduated cum laude (average 90%)
- ▶ Theoretical Physics with Advanced Theory Track (extracurricular problem sets)
- ▶ [Thesis](#) on computational modeling of plasma flow graded 95% (Dirk Bouwmeester group)

Univ. of British Columbia - Exchange september 2019 - january 2020

- ▶ Courses in physics and engineering (average 88%)

Leiden University - Computer Science september 2017 - july 2018

- ▶ Completed first year courses alongside physics bachelor (see above)
- ▶ Propedeuse obtained cum laude (average 91%)

Visser 't Hooft Lyceum - High School september 2010 - july 2016

- ▶ Graduated magna cum laude (average 87%)
- ▶ Perfect score on national final mathematics exam

PERSONAL PROFILE

Curious, driven, and outgoing character. I have a big passion for both physics and computer science. My field of expertise is (numerical) electron optics. I love to travel and to meet international people.

OPEN SOURCE

[Traceon](#) - 3D electromagnetic field solver and particle tracer. One of the fastest and most accurate packages available for electron optics. Distributed as Python package containing an optimized C backend.

Visit my [Github](#) for more

OTHER

International experience

- ▶ Grew up in Italy.
- ▶ Backpacked New-Zealand, the Balkans, Philippines, Vietnam and Colombia.
- ▶ Spent five months in Vancouver as an exchange student.

Spoken languages

- ▶ Dutch, English, (Italian)