



milovermeulen.com  
linkedin.com/in/milo-vermeulen



info@milovermeulen.com



Send me a message first, then  
we'll talk!



Houston, TX

# Milo Vermeulen

Software engineer • Physicist • Data scientist

Mission-driven scientific software engineer with 4+ years of experience in software engineering and physics PhD graduate with 4+ years experience in academic data science. Passionate about leveraging broad base of knowledge in today's most important and impactful projects.

## Education

### PhD Experimental Neutrino Physics

Nikhef - Amsterdam  
2016-2021

Particle data analysis and data acquisition

### Master Physics and Astronomy

Radboud University - Nijmegen  
2014-2016

Specialization in particle physics

### Bachelor Physics and Astronomy

Radboud University - Nijmegen  
2011-2014

Specializations in material sciences and particle physics

Honours academy: investigated nanoparticle tumor treatment

## Skills

### Programming languages

Python	●●●●●●
C++	●●●●●●
HTML/CSS/TS	●●●●●●
SQL	●●●●●●
Shell script	●●●●●●

### Principles

- ▶ Agile / scrum / kanban
- ▶ Relational databases
- ▶ Object-oriented programming
- ▶ Test-driven development

### Soft skills

Communication	Abstract thinking
Problem-solving	Detail-oriented
Creativity	Teamwork

### Languages

English	●●●●●●
Dutch	●●●●●●
Spanish	●●●●●●
French	●●●●●●
German	●●●●●●

## Work experience

### Scientific Software Engineer

Science [&] Technology - Delft, Netherlands

July 2021 — June 2023

- ▶ Implemented and maintained a containerized Python/Django-based monitoring system for earth-observation satellite missions
- ▶ Set up a dynamically generated Grafana-based monitoring user interface
- ▶ Led frequent meetings with customers to report progress and set priorities in an agile workflow
- ▶ Played a key role in onboarding multiple new members of the team by code walkthroughs and pair-programming sessions

### Particle Physics PhD Candidate

Nikhef - Amsterdam, Netherlands / CERN - Genève, Switzerland /  
University of Houston - Houston, TX

Sep 2016 — March 2021

- ▶ Performed big data analysis in a C++ and Python-based pipeline
- ▶ Created high-performance compression and readout algorithms in C++ for a large-scale particle physics experiment's data acquisition chain
- ▶ Developed a JavaScript-based tool to simulate and animate neutrino oscillations ([milovermeulen.com/webneut](http://milovermeulen.com/webneut))
- ▶ Led a series of tours at the experiment and represented the institute at conferences and information markets

### Intern

Radboud University - Nijmegen, Netherlands / Göteborg Universitet - Göteborg, Sweden

2014, 2016

- ▶ Wrote a C++ program to simulate ion propagation in water under a high-voltage electric field
- ▶ Carried out spectral analysis and simulation studies on free-electron laser radiation

For more information, visit [milovermeulen.com](http://milovermeulen.com)