

# 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.



[milovermeulen.com](http://milovermeulen.com)



[linkedin.com/in/milo-vermeulen](https://www.linkedin.com/in/milo-vermeulen)



[info@milovermeulen.com](mailto:info@milovermeulen.com)



Send me a message first!



Houston, Texas

## Professional Experience

**Scientific Software Engineer** July 2021 – June 2023

**Science [&] Technology**, Delft, Netherlands

- 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 bi-weekly meetings with customers to report progress and set priorities in an agile workflow
- Onboarded three new members of the team by code walkthroughs and pair-programming sessions

**Particle Physics PhD** Sep 2016 – March 2021

**Nikhef** - Amsterdam, Netherlands / **CERN** - Geneva, Switzerland / **University of Houston** - Houston, Texas, USA

- Performed big data analysis in a C++ and Python-based pipeline
- Created high-performance compression and readout algorithms in C++ for a 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
- Oversaw two years of university courses, ranging from physics labs to quantum mechanics

## Education

**PhD Experimental Neutrino Physics** 2016 – 2021  
University of Amsterdam, Amsterdam, Netherlands

**Master of Science (MS), Physics and Astronomy** 2014 – 2016  
Radboud University, Nijmegen, Netherlands

**Bachelor of Science (BS), Physics and Astronomy** 2011 – 2014  
Radboud University, Nijmegen, Netherlands

## Key Skills

### Soft skills

- Communication
- Problem-solving
- Creativity
- Abstract thinking
- Detail-oriented
- Teamwork

### Programming languages

- Python
- C++
- SQL
- Shell Script
- HTML / CSS
- TypeScript
- JavaScript

### Principles

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

### Frameworks, libraries and tools

- Git
- PostgreSQL
- Grafana
- ROOT
- LaTeX
- Docker
- Django
- Pandas
- Plotly
- Svelte

### Languages

- Native
- English
- Dutch
- Intermediate
- Spanish
- French
- German