

Jelmar Gerritsen

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 The Hague 

About me

I'm a driven researcher with a broad academic background. My extensive experience in software engineering allows me to bridge the gap between theoretical research and practical implementation while writing clean and maintainable code. I have expertise in satellite data, remote sensing, numerical modeling, machine learning and astrodynamics.

Education

MSc Aerospace Engineering  2021–2025

 [TU Delft](#)

Profile: Spaceflight. *Track:* Planetary Sciences. Full course/grade list available upon request. *GPA:* 7.6/10

BSc Physics & Astronomy  2016–2021

 [Radboud University](#)

Minors: Astronomy, Climate science. Also completed 2 semesters towards a BSc in Computer Science. *GPA:* 7.0/10

Experience

Software engineer  March 2026–present

 [Waving, Amsterdam](#)

Authored the core, realtime sensing pipeline that runs on embedded edge devices. Built an automatic data labeling framework to support ML training. Showcased PoCs in collaboration with major critical infrastructure operators.

Intern & thesis student  September 2024–December 2025

 [SRON, Leiden](#)

I did an internship about fire emissions, comparing satellite data to simulations using bottom-up inventories. I then wrote my MSc thesis about the remote sensing of methane plumes using the OCI instrument aboard the PACE satellite.

Programming teacher  April 2021–May 2021

 [Stanford University, online](#)

I was a section leader for Stanford Code In Place, where I taught Python to an international class of 10 students for around 5 weeks.

Teaching assistant  Winter 2019

 [Radboud University](#)

Course taught: Energy & Sustainability. I designed my own case study on the renewability of a campus building for the students to take on.

Badger keeper  2018–2019

 [Stichting Das & Boom](#)

I volunteered at a shelter for rescue badgers. In addition, I developed a software app using GIS and React for logging & visualising roadkill casualties to aid in conservation efforts.

Skills

Python C++ Julia Rust
TypeScript MATLAB React
GIS PyTorch Bash Xarray

Achievements

 Paper contribution  2025

I contributed part of my thesis work to a [paper collaboration](#) between MIT, SRON and NOAA, making me a co-author. I also presented my work to 2 teams at NASA.

 IAC paper publication  2024

My first author paper “*NOMAD: Neptune Orbiter Mission for Auroral Detection*” was accepted for publication at the International Astronautical Congress (IAC) in Milan.

 BAPC preliminaries 3rd place  2017

My team and I came in 3rd in the Benelux Algorithm Programming Contest, qualifying us for the finals in Amsterdam.

Languages

Dutch		Native
English		C2
German		B2
French		A2
Swedish		A1
Chinese		A1

Projects

Apygee [↗](#)

📅 2024

A Python library for creating, manipulating and visualizing Kepler orbits, using popular scientific packages like `numpy`, `scipy` and `matplotlib`. Published on PyPi.

Wikigraph [↗](#)

📅 2022

A React app for visualizing graph connections between Wikipedia pages. I hand-rolled my own WikiMedia API interface in TypeScript and displayed the graphs using `react-three-fiber`.

World Heritage map [↗](#)

📅 2017

Interactive map of UNESCO World Heritage sites, built with the Google Maps API and React.

WifiHeatmap [↗](#)

📅 2016

An open-source Android app written in React Native and Java that allows you to make a map of your wifi signal strength.