



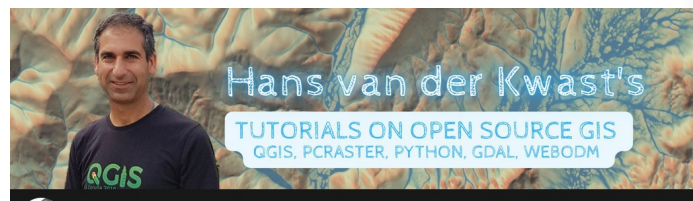
GeoAI in Actie: van AI-digitizing tot generatieve scenario's in QGIS

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Geo-ICT Training Center

Waar wil je meer over leren?



Cursussen



Blended Learning



Trainees



Agenda

Theorie

- Wat is (Geo)AI?
- Large Language models (LLM)
- Wat is machine learning en deep learning?

Praktijk

- AI-vectoriser
- Segment Anything
- Deep Learning
- Generatieve AI



#30DayMapChallenge Day 9: AI Only



Hans van der Kwast • You

Associate Professor of Open Science & Digital Innovation / Owner Q...

1w •

#30DayMapChallenge Day 9: AI only

To generate this map with DALL-E 3, I've used the following prompt:
"Generate a hydrological map of the Rur catchment as if it was made with QGIS. It needs to show the river network and shaded relief. Also add title, scale bar, legend, north arrow and some places."

While this AI-generated map looks impressive, I still believe that following Chapter 7 of the book QGIS for Hydrological Applications, which I co-authored with [Kurt Menke](#) (available at [Locate Press](#) <https://lnkd.in/gfNrRKMb> ✓) results in a much better map of the Rur catchment!

#DALLE3 #QGISHydro #AI Art #generativeAI #DALLE3



Ahmed Sakna and 296 others

10 comments • 5 reposts



International Hydraulic Expert

1w •

Thank you! My opinion: visually, AI map looks better. In addition, it is faster prepared. However, it may lack of some important features or needed details?

Like • 1 | Reply



Hans van der Kwast **Author**

Associate Professor of Open Science & Digital Innovation / O...

1w •

The AI map is not realistic. Rivers get larger towards the mountain top (impression that darker shading in the center means higher). It doesn't show a catchment as prompted. It also has multiple north arrows, text is unreadable and the legends don't make sense, etc.

Like • 1 | Reply



International Hydraulic Expert

1w •

[Hans van der Kwast](#) Now I have a better understanding of differences. Your method and map is much better and realistic.

Like • 1 | Reply



Geospatial Information Creativity Specialist @Sharqia Development ...

1w •

In my opinion, AI in map design offers valuable support for those who struggle with effective visualization, helping them organize map elements thoughtfully, choose impactful designs, and select appealing color schemes. This assistance is especially beneficial for individuals who may not naturally have the creativity or expertise to make their maps visually engaging.

Like • 2 | Reply

Je krijgt altijd een antwoord...

I need to get my car washed but the car wash is only 300 meters away.
Should I walk or drive to the car wash?

If it's only 300 meters, I'd definitely walk 🤖

Here's why:

🚶 Walking (recommended)

- 300 m = about 3–4 minutes
- No need to:
 - start a cold engine
 - move the car just to move it again
 - burn fuel for basically nothing
- Slightly more environmentally friendly
- You get a tiny bit of fresh air and movement

🚗 Driving

Unless one of those exceptions applies, walking is the logical (and mildly virtuous) choice.

Bonus thought: if you're washing the car, it probably needs to be driven anyway after, so walking there and driving back is the optimal combo 😊

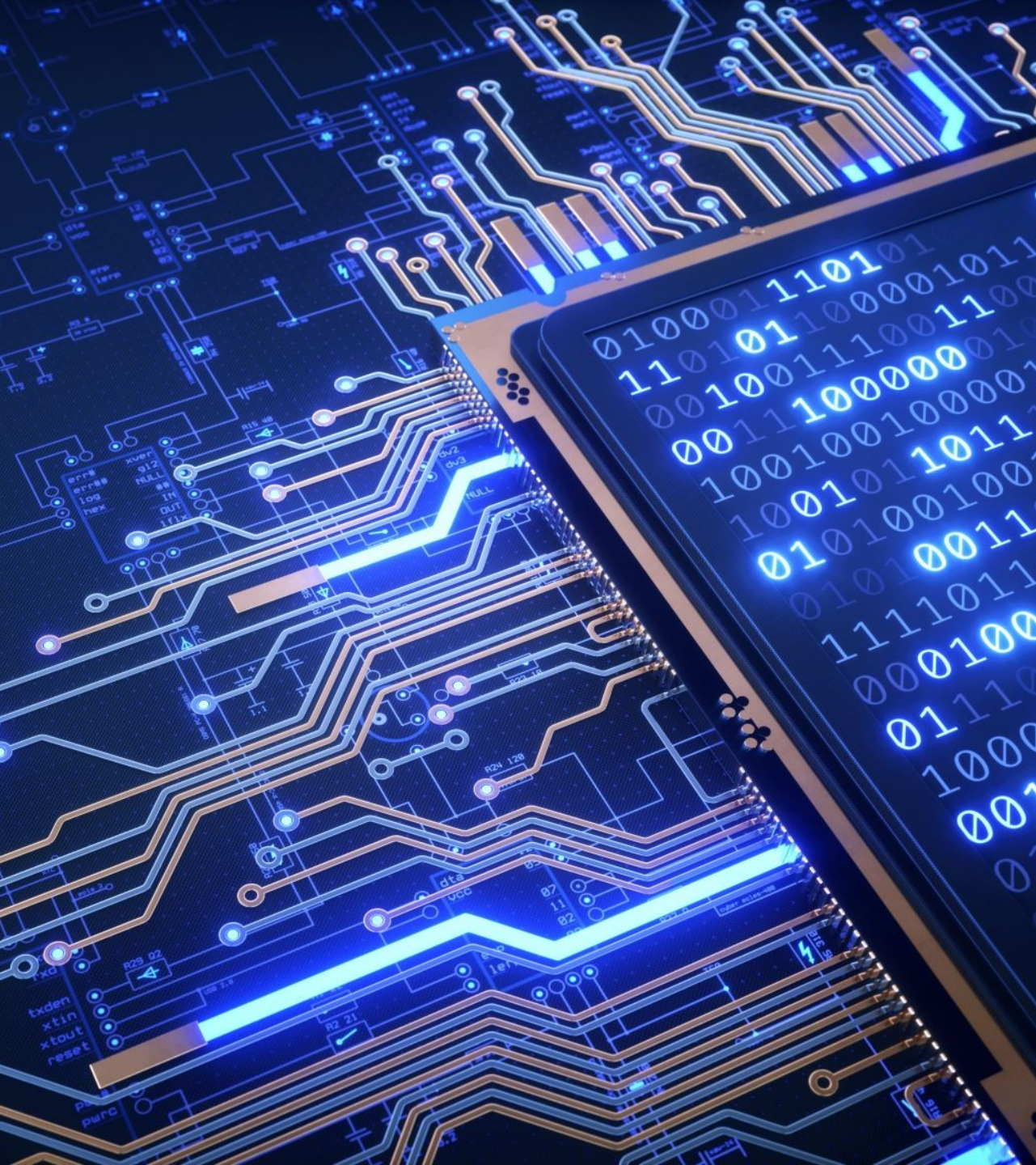


+ Stel een vraag

Direct ▾



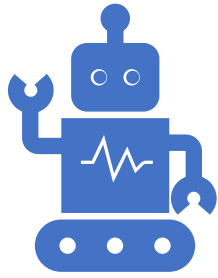
ChatGPT kan fouten maken. Controleer belangrijke informatie.



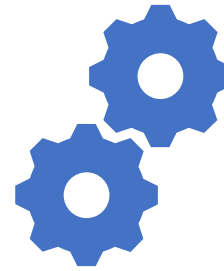
Wat is GeoAI?

- Definitie:
 - GeoAI is het gebruik van methoden voor kunstmatige intelligentie, waaronder machine learning en deep learning, om geospatiale data en beelden te analyseren en te interpreteren.
- Belangrijke onderdelen
 - Georuimtelijke gegevens AI-algoritmen (bijv. voorspelling, classificatie) Machine learning en deep learning-technieken

Large Language Models (LLM's)



Definitie: LLM's zijn een type AI-model ontworpen om menselijke tekst te begrijpen en te genereren op basis van enorme hoeveelheden gegevens.



Toepassingen in GeoAI:

Natural Language Processing (NLP) voor het interpreteren van geospatiale gegevens.

Versterken van gebruikersinteractie met GeoAI-tools door middel van conversatie-interfaces.

- Copilot
- Grok
- Gemini
- ChatGPT

AI, Machine Learning en Deep Learning

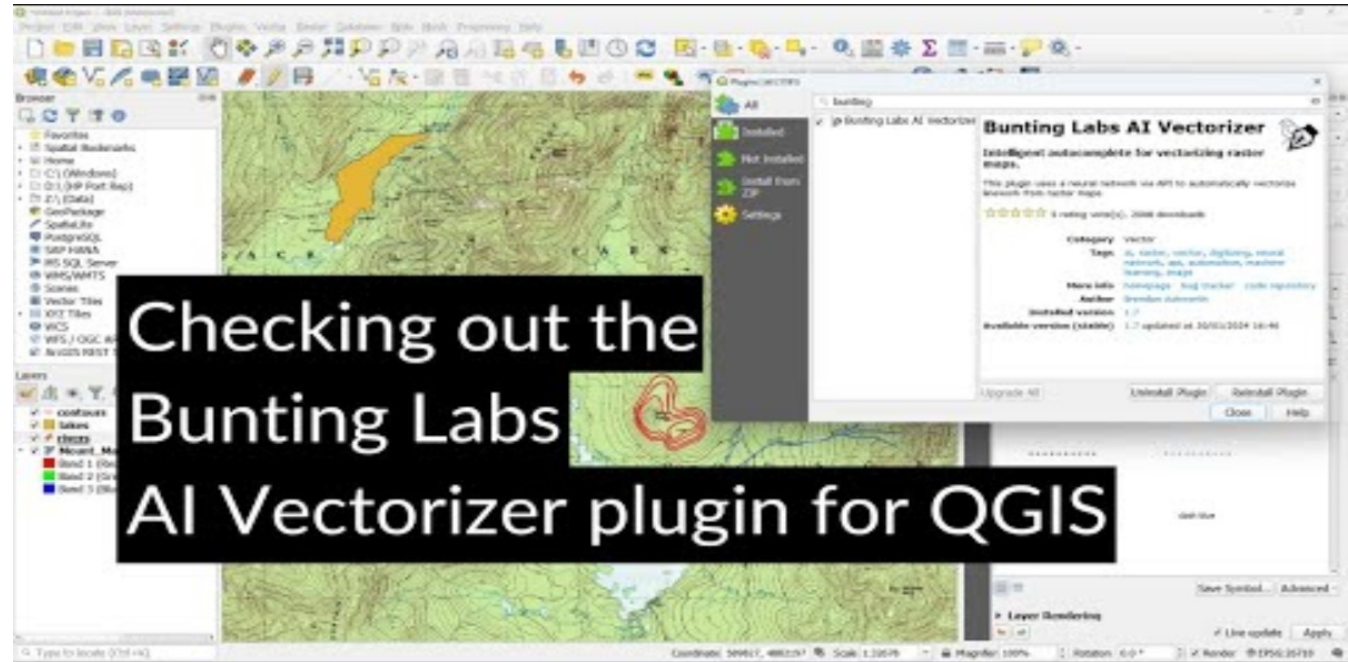
Kunstmatige Intelligentie (AI): Het brede veld van het creëren van machines die taken kunnen uitvoeren die typisch menselijke intelligentie vereisen.

Machine Learning (ML): Een subset van AI die het trainen van algoritmen omvat om te leren van en voorspellingen te doen op basis van gegevens.

Deep Learning (DL): Een subset van ML die neurale netwerken met veel lagen gebruikt (vandaar "diep") om complexe patronen in gegevens te analyseren.

Voorbeelden van AI en Machine Learning Plugins voor QGIS

AI Vectorizer



Plugins | All (2164)

All

Installed

Not installed

Invalid

Install from ZIP

Settings

AI Segmentation

AI Segmentation by TerraLab

AI Segmentation by TerraLab

Segment buildings, vegetation, or any object in your raster using AI & export as vector polygons

Point-and-click AI segmentation tool that turns raster objects into vector polygons.

- Fully automatic: AI model and dependencies install themselves
- Works on any layer: local rasters (GeoTIFF, JPG, PNG) & online layers (WMS, XYZ tiles)
- Precise: positive and negative click points control boundaries
- Flexible: save multiple polygons and export them all in one layer
- Refinable: expand, contract, simplify, fill holes, remove small regions
- Fast: Real-time segmentation & optimized for your hardware
- Universal: Windows, macOS, Linux
- Multilingual: English, French, Portuguese, Spanish

★★★★★ 159 rating vote(s), 14306 downloads

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Author Yvann and Lilien from TerraLab

Available version (stable) [0.7.8](#) updated at 18/03/2026 14:55 W. Europe Standard Time

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