JuliaGeo: A *gentle* introduction

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Who am I?

- Maarten Pronk (@evetion on github)

- Researcher at Deltares, a research institute in the Netherlands
  - Where I write numerical simulation package(s) in Julia
- PhD candidate at TU Delft
  - Developing global terrain models

- Author of several Julia packages
  - GeoDataFrames, GeoArrays, GeoParquet, WellKnownGeometry
  - SpaceLiDAR.jl, a package for dealing with spaceborne lidar datasets

Today

- Setup Julia & IJulia

- **Ju**pyter notebooks (see https://github.com/evetion/OGH2023)
  - Julia intro
  - Package management
  - Noteworthy differences (vs Python, R)

  - Parallel processing
  - Geospatial stack
  - Some pointers for the hackathon

Setup

- Juliaup
  - Tool to install/update/remove Julia versions
  - Copied from rustup
- Julia
  - Run on its own to have interactive terminal (REPL) like Python/R
  - Run as command with a script like `julia script.jl`
- Jupyter lab/notebook
  - Either run from Julia using IJulia
  - Launch from somewhere else and use the kernel from IJulia

Remarks

- Feel free to ask questions
  - Here, raising a hand or interrupting
  - Mattermost
  - Github
  - Discord
  - Slack

- No open-source without a community
  - Make issues!