


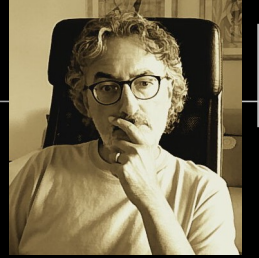
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 [@gisgeek@floss.social](https://floss.social/@gisgeek)

 github.com/fpl

Introductory notes for GeocompML 24

Who



- Computer science background
- Researcher in remote sensing and geospatial processing
- Debian Developer since 2000
- DebianGis project founder (2004)
- Geek and FOSS advocate and contributor since 90s

DebianGis for dummies



Introducing the DebianGis subproject

- *To:* Debian Developers Announces <debian-devel-announces@lists.debian.org>
- *Subject:* Introducing the DebianGis subproject
- *From:* "Francesco P. Lovergine" <frankie@debian.org>
- *Date:* Wed, 13 Oct 2004 10:47:51 +0200
- *Message-id:* <20041013084751.GC16227@ba.issia.cnr.it>
- *Mail-followup-to:* debian-devel@lists.debian.org

DebianGis is a new sub-project recently launched thanks to the efforts of a group of Debian developers and users. The goal of DebianGis is to create a Custom Debian Distribution [1] oriented to serious Geographical Information Systems (GIS) users and applications [2].

Debian already includes several GIS oriented programs and libraries, thus our first aim is to coordinate development efforts. In addition, at this stage we wish to collect as much information as possible on users' needs and suggestions.

In the future we would broaden the project to include other Earth Observation software categories in order to create the first all Free Software [3] distribution dedicated to Remote Sensing, Earth Observation, and Geographical Information Systems.

Of course, all people interested are invited to join us. We are currently using the pkg-grass project site on Alioth [4] to provide a mailing list [5] and wiki [6].

Stay tuned, more novelties would come as soon as possible...

*References:

- [1] <http://wiki.debian.net/index.cgi?CustomDebian>
- [2] <http://en.wikipedia.org/wiki/Gis>
- [3] <http://www.gnu.org/philosophy/free-sw.html>
- [4] <https://alioth.debian.org/projects/pkg-grass/>
- [5] <http://lists.alioth.debian.org/mailman/listinfo/pkg-grass-general>
- [6] <http://pkg-grass.alioth.debian.org/cgi-bin/wiki.pl>

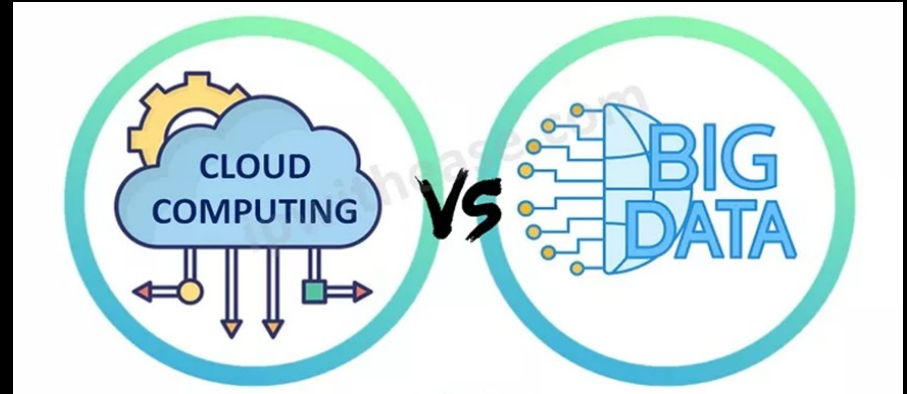
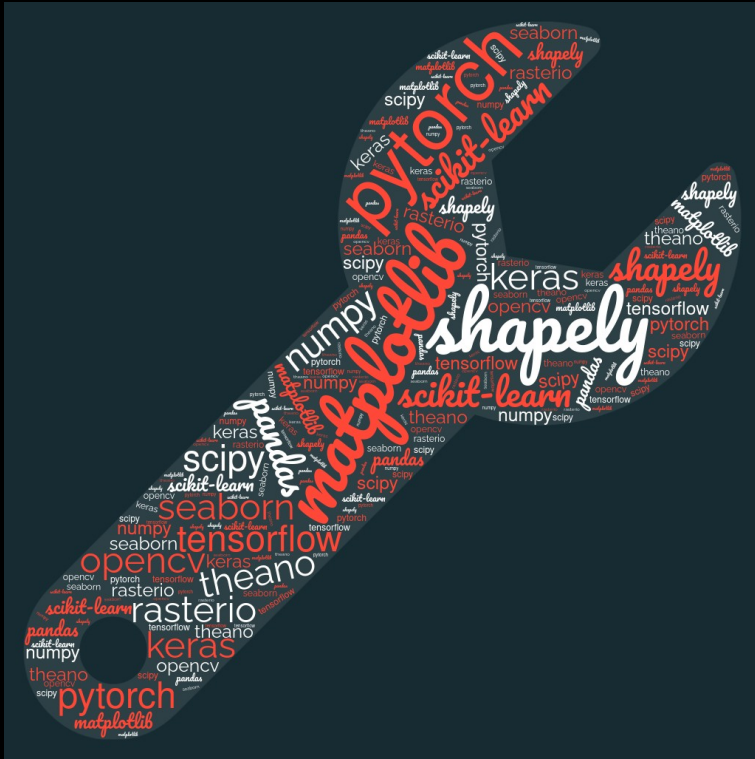
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The DebianGis Team

What

- Rasterio
- GEE & friends
- Modern dev tools
- *whatever*



Why



- Data analysis
- Data visualization
- Machine learning
- Deep learning
- Image processing
- Computer vision
- NLP



Hints for (geo)data science

- NumPy, SciPy, SymPy, Pandas
- Tensorflow, Keras, PyTorch, scikit-learn
- OpenCV, scikit-image
- PIL → Pillow
- spaCy and NLTK (only NL)

- Requests, Beautiful Soup, Regex, Dask
- Matplotlib, seaborn, Plotly, Datashader, Mayavi, Paraview, Bakeh, Altair
- Dash, Sreamlit, Voilà, Panel

- Geopandas, CartoPy, Geoplot, folium, ipyleaflet, HoloViz, KeplerGL, pydeck, shapely, rasterio, gdal/osgeo, proj

- PySpark (→ Apache Spark), xarray, datacube, pycube, opendatacube, rasdapy, ...

