# GeoLime

## The Python library for the modelling geoscientist

by DeepLime

**GeoLime is a collaborative Python library designed for geoscientists**. As a growing project managed by DeepLime, it delivers the flexibility the geo-data-scientist needs.

- Based on open-source libraries with in-house algorithms
- Cloud-ready for edge computing
- Focused on spatial data for mining and oil&gas
- source code in Python/Julia based on Julia/C/C++/Fortran libraries for performance

Our code base is open to participating universities, research centers and companies.

## Data QC, EDA & Processing

Natively work with object such as **Drillholes**, **Block Models, Surfaces** and **Meshes**, **Poinset**, **Polygons.**

**Select by polygon/surface, map, draw stats, blocking, aggregate, unfold, merge, migrate,...** Object operations are easily accessible through user-friendly syntax.

## Geomodeling & Geostatistics

GeoLime's tools cover the **resource modelling workflow:** Open-pit Optimization, Desurveying, Declustering, Compositing, Variography, Interpolation, Estimation, Simulation, Non-Linear, Multivariate, Surface Modeling, Uncertainty Analysis

## Interoperability

**I/O**: GeoLime works with Shp, DXF, CSV, LAS, Parquet, etc...

**Python**: All objects are Pandas & GeoPandas based, and can be queried with your usual methods.

**Accessibility**: Access an infinite knowledge-base to build your next ML, AI, simulation, optimization, ... project with the tools at hand in other Python libraries.

## Reporting

**Reporting** & **Validation**: GeoLime has in-build graphical capability to quicken your geo-data insights through cross-sections, correlation matrix, swath plots, grade-tonnage curves, variogram maps...

## Licencing & Support

Our model is simple - we provide corporate licenses with unlimited tokens

Full remote support available, with offices in France, Australia, and New Caledonia

**contact@deeplime.io**