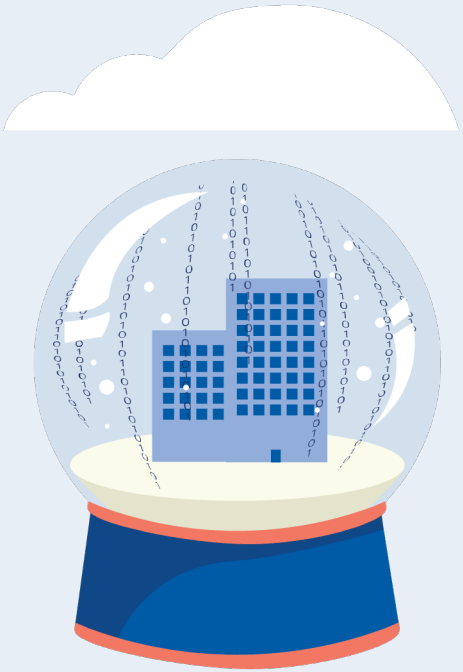
Algorithm Audit

Local-only tools for AI validation



Bias testing, synthetic data generation and more…

What are *local-only* tools?

Leveraging computing power of local devices

No reliance on cloud platforms

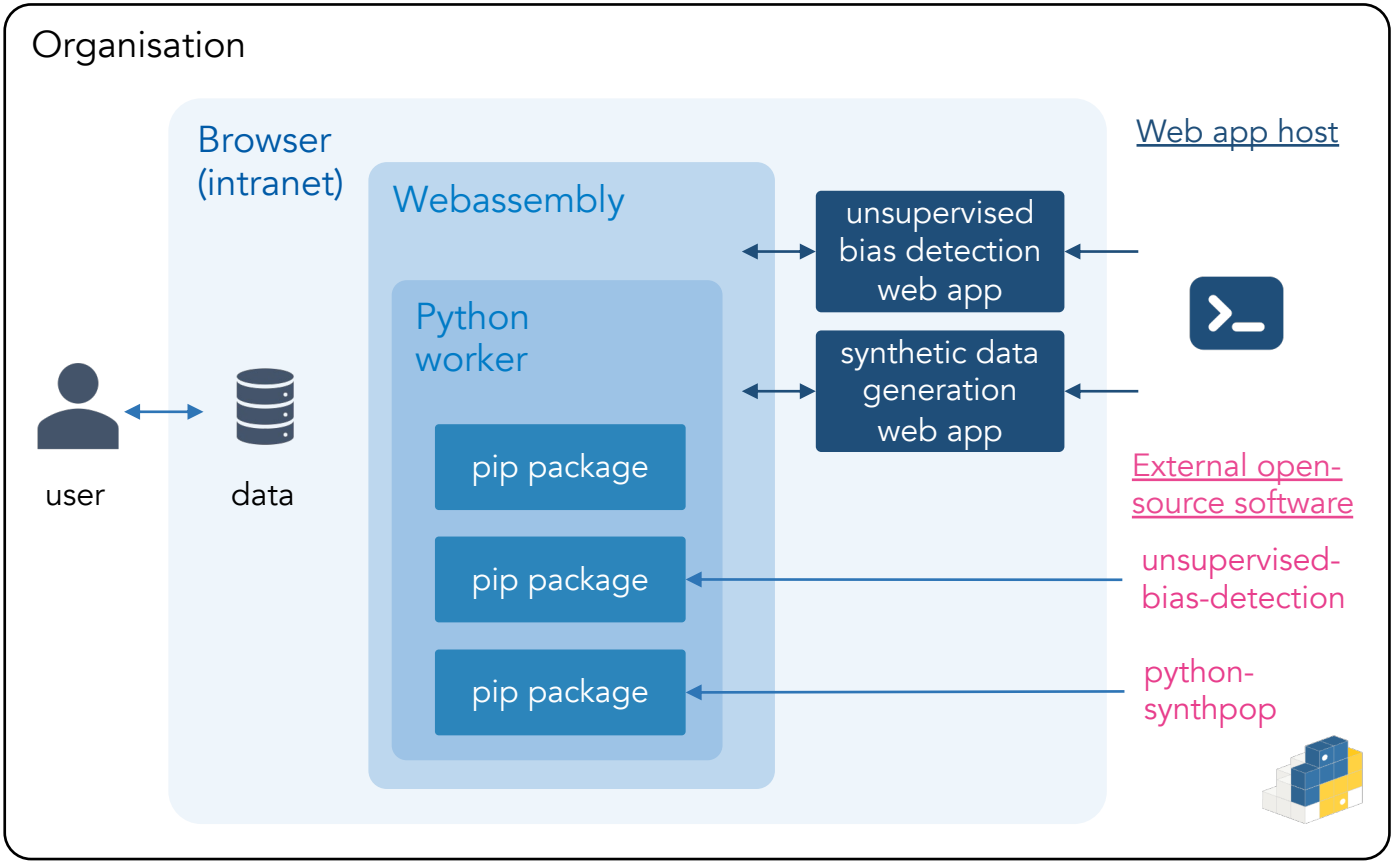
Local computing: Using the computing power of user's computer or phone for tasks that don't require a supercomputer on a remote server

Local storage: data are processed in the browser, don't leaving your computer and the environment of your organization*

* if proper enterprise browser security protocols are followed

Architecture of *local-only* computing

Tools run in your browser, providing access to state-of-the art (open-source) software

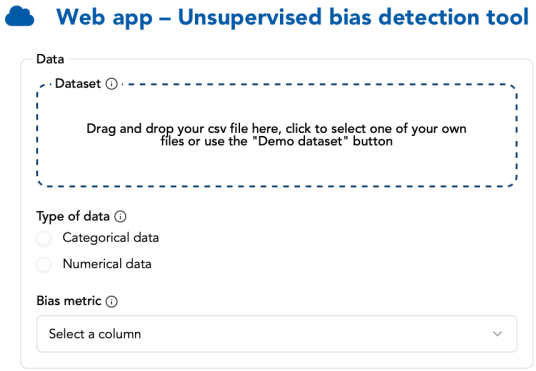


Example 1 – Anomaly detection for bias testing in algorithmic systems

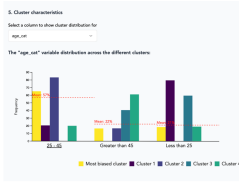
Making it easier for organisations to perform bias testing without access to sensitive data attributes

Organisation

Data



Local-only web app



Automatically generated bias report

Available as demo on website of Algorithm Audit

Github

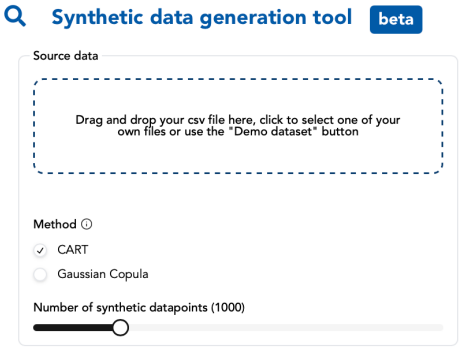
Available as pip package unsupervised-bias-detection

Example 2 – Local-only synthetic data generation

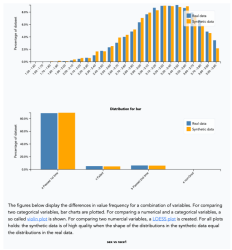
Helping organisations in generating synthetic data

Organisation

Data



Local-only web app



Automatically generated evaluation report

Available as demo on website of Algorithm Audit

Github

Available as pip package python-synthpop

Advantages of local-only web apps

"There is no cloud, it's just someone else's computer"

Feature	Cloud solution	Local-only tool
Data processing	😐 Data is processed on external server outside the organisation's control	😌 Data processed on the local computer, confidentiality ensured
Service reliability	😐 Service shuts down? Lose everything!	😌 Works completely offline once loaded
Cost structure	😐 Recurring costs for compute, storage, and data transfer	😌 No ongoing server costs, bandwidth charges, or usage fees

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Ministerie van Binnenlandse Zaken en Koninkrijksrelaties

Dutch Executive Agency for Education

Dienst Uitvoering Onderwijs
Ministerie van Onderwijs, Cultuur en Wetenschap

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Develop local-first tools tailored for your organisation

Learn more during one of our lunch webinars

NL [link]

Tuesday June 10th
12h00-13h00 CET

EN [link]

Friday June 13th
12h00-13h00 CET

Direct support

Reach out to info@algorithmaudit.eu

Building *public knowledge* for *ethical algorithms*

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Algorithm Audit

www.algorithmaudit.eu

info@algorithmaudit.eu

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