



# cySBOM

Kyle W. Brown

Chief Executive Officer

8/1/2024

# Overview

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# cySBOM

- Automated SBOM generator for Python/R production environments.
- Generates comprehensive SBOM's for projects, enabling better organization, collaboration, and management of project dependencies across diverse production scenarios.
- Executive Order 14028 compliant.
- Possible Production Projects:
  - Data Analysis and Visualization
  - Statistical Modeling and Machine learning
  - Web Application
  - Package Development
  - Reproducible Research
  - Reporting
  - ETL (Extract, Transform, Load)
  - Website Development



# Current Progress

- CRAN packaged
- Last round before publication
- Production projects
- Providing CycloneDX 1.5 JSON/1.4 XML



# How it Works

- Collects all package information used for software.
- Creates CycloneDX 1.5 JSON format.
- Creates `version` database to track CycloneDX version number.
- Generates a `preview-sbom.html` and `sbom.json` in a sbom folder in project directory.



# Industry Background

- 90% of all Fortune 500 companies use R
- All Fortune 500 companies use Python
- R is a favorite among Corporate Marketing departments

No SBOM tool for Data Science/ML production projects



# cyTools App Workflow

- SCM with renv
- Drop file
- Only stores SBOM ref #
- Email SBOM to email

