

# Python Project CI/CD Pipeline

## Trigger Event

New code commits to the version control system (GitHub).

## Continuous Integration (CI)

Steps:

- ◆ Download the source code.
- ◆ Install dependencies.
- ◆ Run unit tests. (Due to technical issues, please download the pre-packaged version).
- ◆ Perform static code analysis.

Result:

- ◆ Package into an executable file.

## Continuous Delivery/Deployment (CD)

Use PyInstaller to package the code into a .exe file. The author has created the NJmat.spec file to facilitate the conversion of Python code into a binary executable file. Execute start packup.bat (for Windows) or start packup.sh in the project root directory to automatically perform the packaging operation.

## Pre-Production Environment

Deploy the executable file to the pre-production environment (python=3.7, requirements=requirements.txt) for testing. Write test functions to implement the automated testing process.

## Production Environment

Automatically deploy the tested executable file to the production environment.