

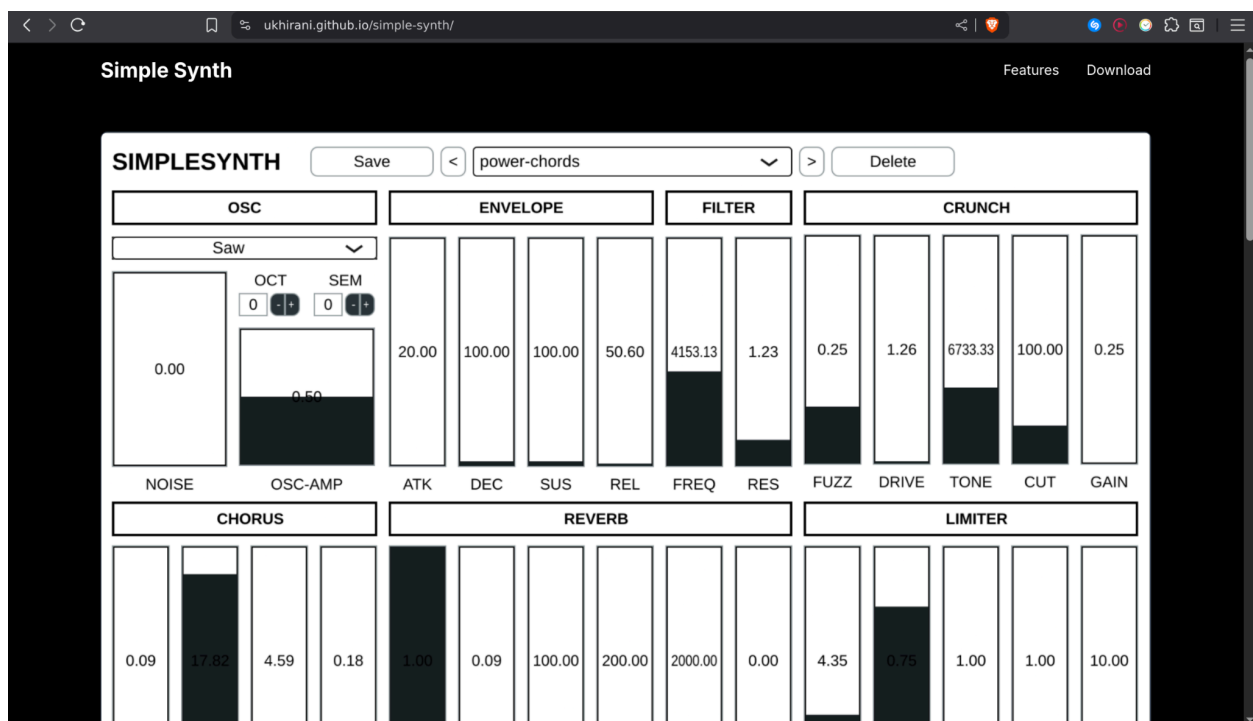
# Deployment and Operations

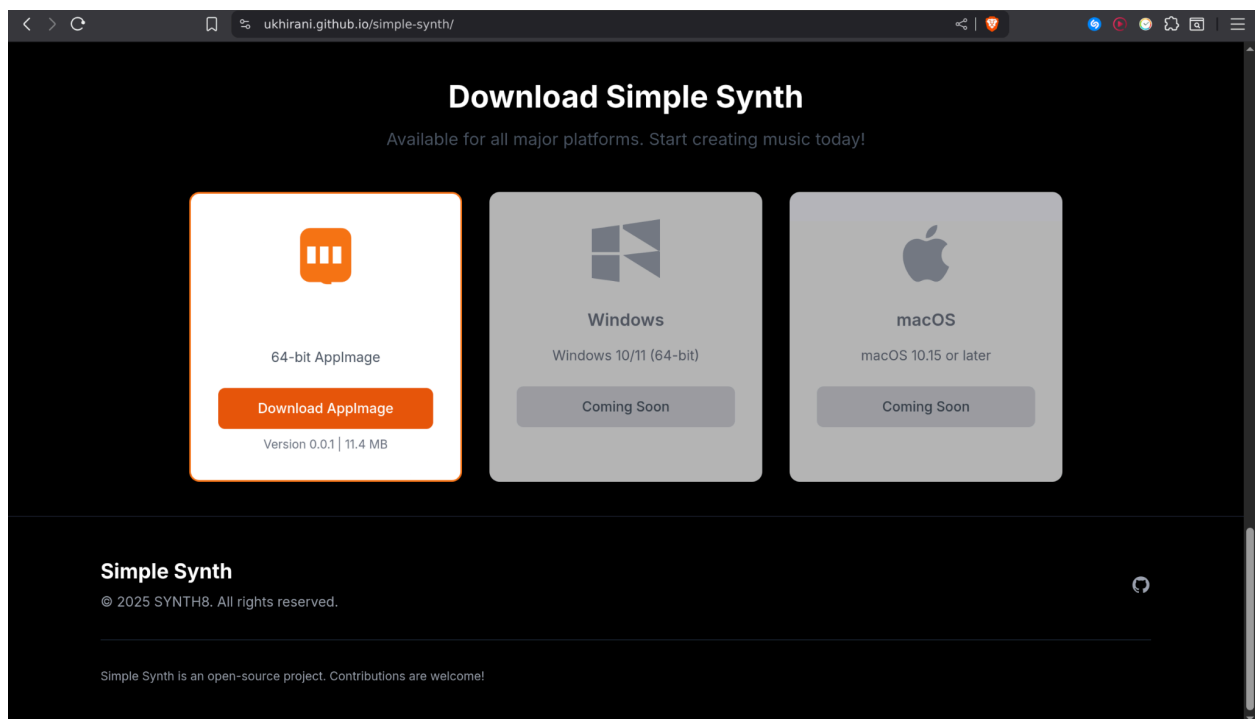
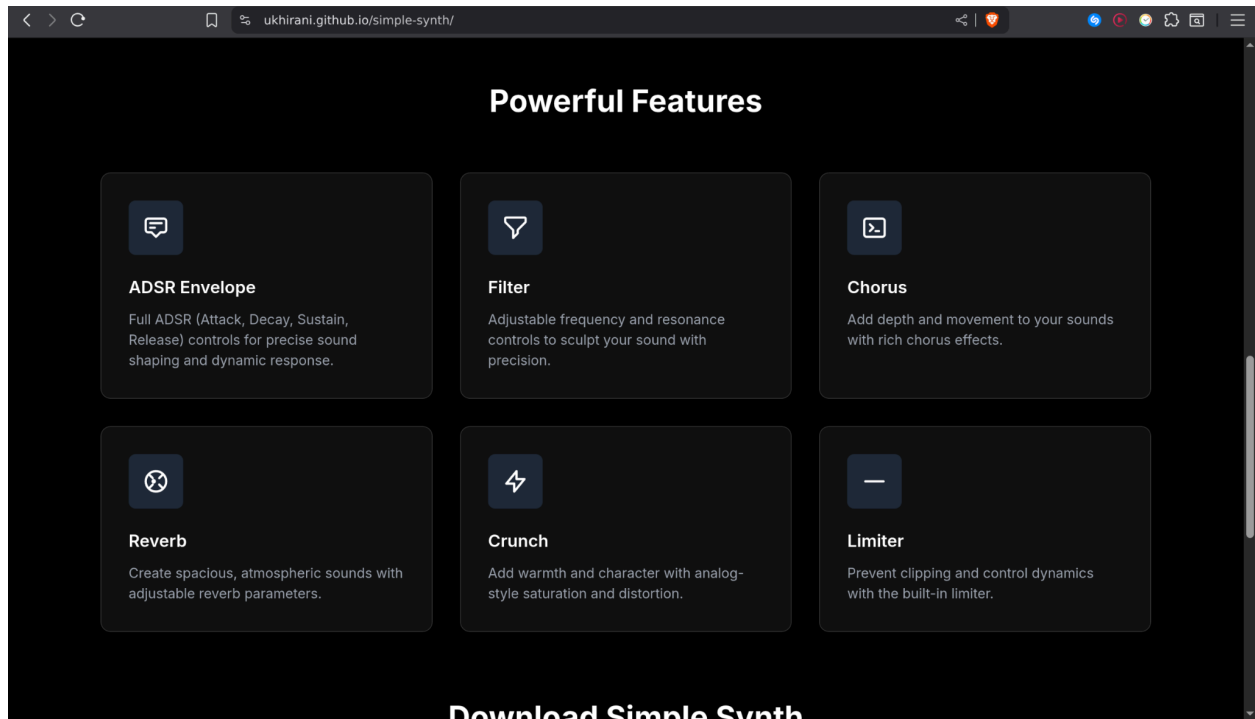
Umang Hirani

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## Live Deployment:

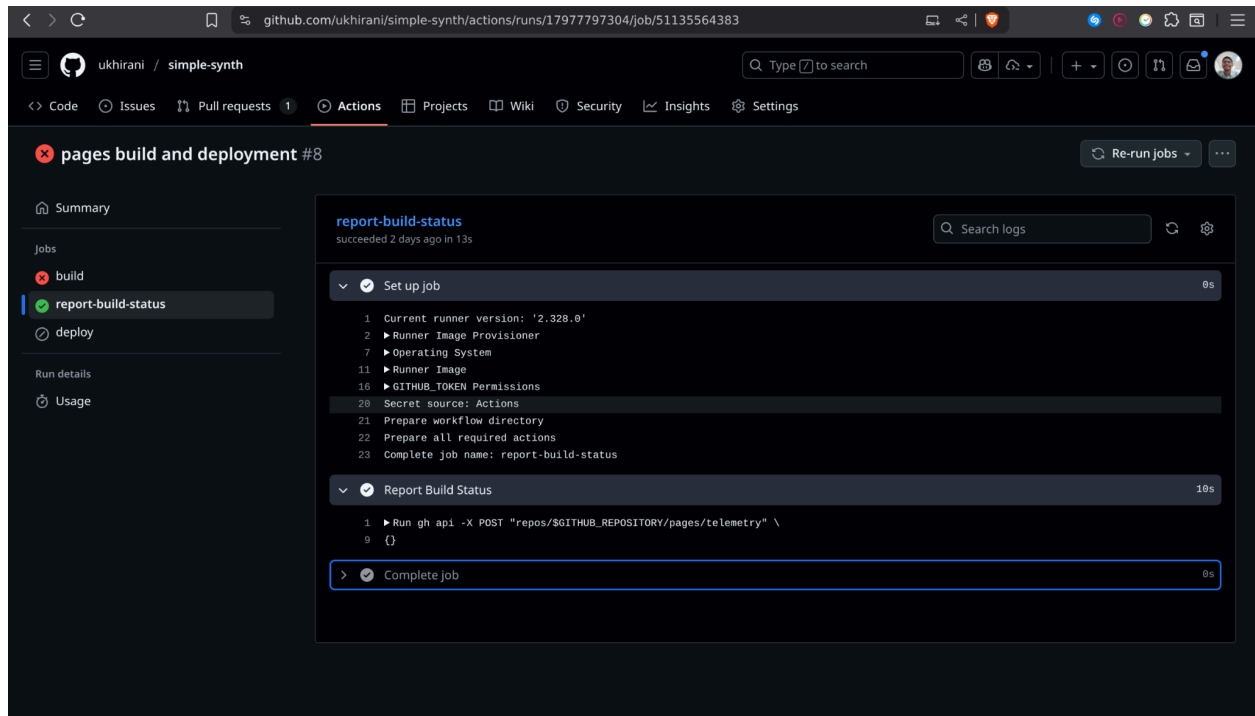
- The whole application is deployed to a static website which will allow the users to download the up-to-date desktop application for their OS of choice.
- Live Deployed Link (<https://ukhirani.github.io/simple-synth/>)
- Here are the screenshots for the same





## Monitoring:

- Since this is not a web based application, it cannot have real time monitoring, however the CI/CD build and pipeline can be monitored through github



### Maintenance Plan:

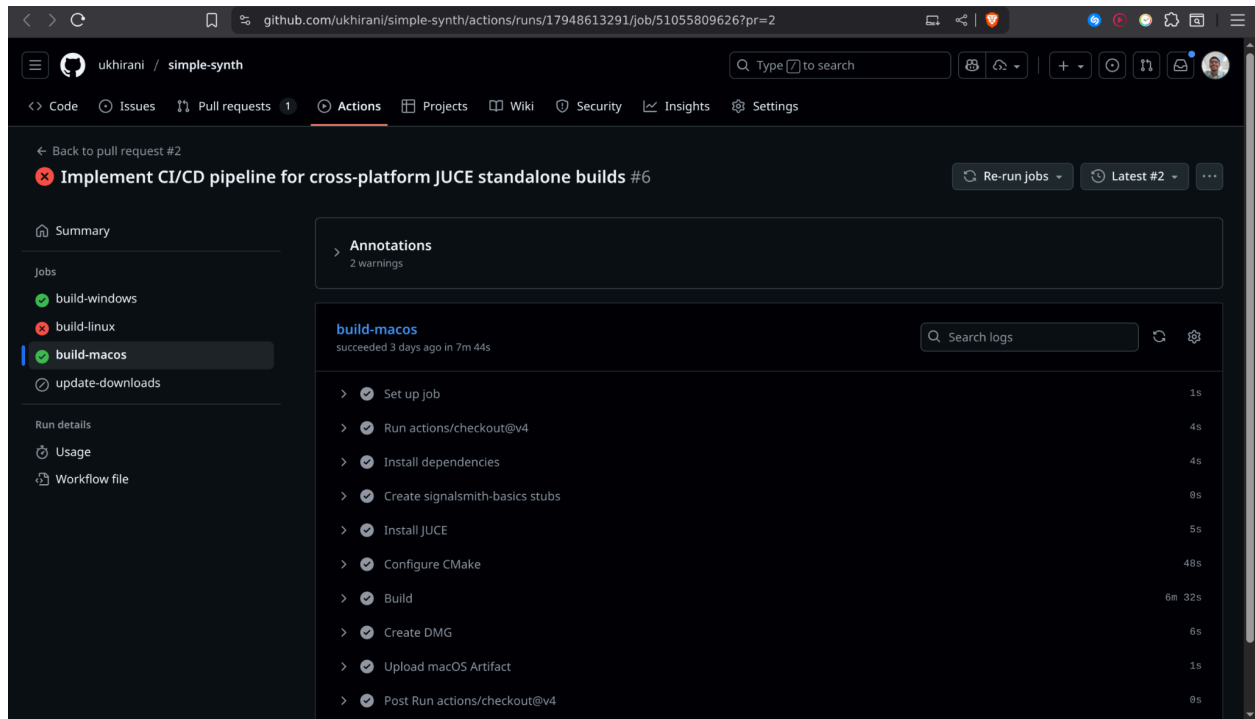
- Bug fixes and software updates can be rolled out rigorously to fix any dependency issues that the user might face and to also add new features that will include potential optimization and address any issues that might come up later.
- Hardware limitations will be definitely there due to the software not being able to perform equally on all systems. It might perform good on a high performance computer but will do the reverse on a rather slower hardware.
- Regular maintenance routines can be implemented to address fixes to the user's issues.

### CI/CD Pipeline for cross compiling for OS native standalone desktop apps.

- Initially I tried writing a CI/CD pipeline that will compile the app for all the different OS natively and ship it to the deployed website so that the users can download the most up to date version of the standalone application.
- Here are the snippets for the same :

## CI/CD pipeline attempts screenshots

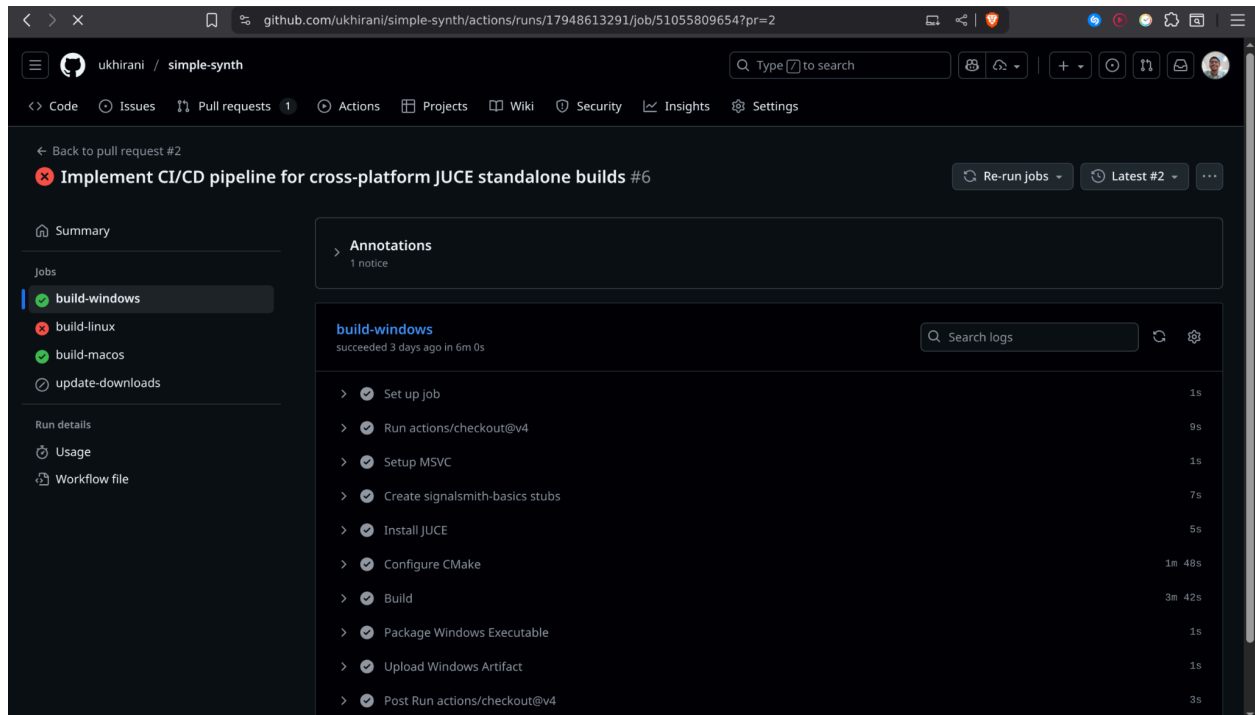
### For MacOS



This screenshot shows the GitHub Actions interface for a workflow named "Implement CI/CD pipeline for cross-platform JUCE standalone builds #6". The workflow is currently in a failed state, indicated by a red 'x' icon. The left sidebar shows the workflow status: "build-windows" is successful (green checkmark), "build-linux" is failed (red x), and "build-macos" is successful (green checkmark). The main panel displays the "build-macos" job details, which succeeded 3 days ago in 7m 44s. The job steps are listed with their durations:

Step	Duration
Set up job	1s
Run actions/checkout@v4	4s
Install dependencies	4s
Create signalsmith-basics stubs	8s
Install JUCE	5s
Configure CMake	48s
Build	6m 32s
Create DMG	6s
Upload macOS Artifact	1s
Post Run actions/checkout@v4	8s

### For Windows



This screenshot shows the GitHub Actions interface for the same workflow, "Implement CI/CD pipeline for cross-platform JUCE standalone builds #6". The workflow is in a failed state. The left sidebar shows the workflow status: "build-windows" is successful (green checkmark), "build-linux" is failed (red x), and "build-macos" is successful (green checkmark). The main panel displays the "build-windows" job details, which succeeded 3 days ago in 6m 0s. The job steps are listed with their durations:

Step	Duration
Set up job	1s
Run actions/checkout@v4	9s
Setup MSVC	1s
Create signalsmith-basics stubs	7s
Install JUCE	5s
Configure CMake	1m 48s
Build	3m 42s
Package Windows Executable	1s
Upload Windows Artifact	1s
Post Run actions/checkout@v4	3s

## For Linux

The screenshot shows a GitHub Actions workflow run for the repository 'ukhirani / simple-synth'. The workflow is titled 'Implement CI/CD pipeline for cross-platform JUCE standalone builds #6'. The run is currently in a failed state, indicated by a red 'X' icon and the text '1 error'.

The left sidebar shows the workflow steps: 'build-windows' (success), 'build-linux' (failure), 'build-macos' (success), and 'update-downloads' (success). The 'build-linux' step is selected, showing its details.

The 'build-linux' step details include a search bar, an 'Explain error' button, and a list of sub-steps:

- Set up job (1s)
- Run actions/checkout@v4 (1s)
- Install dependencies (2m 21s)
- Create signal-smith-basics stubs (0s)
- Install JUCE (3s)
- Configure CMake (1m 19s)
- Build (7s)** - This step is highlighted and shows a failure icon.
- Install AppImageTool (0s)
- Create AppImage (0s)
- Upload Linux Artifact (0s)

The 'Build' step is the one that failed, as indicated by the red 'X' icon and the '1 error' message at the top.