

Intelligent Signal Processing - Mini projects - Final

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EX1 Final - Motion Detection

- Please use Jupyter Notebooks to run the project.

EX2 Final - Rice, Huffman and FLAC

- Please use Jupyter Notebooks to run the project.

EX3 Final - Video Analysis and Conversion

- Please use Jupyter Notebooks to run the project.

Installation of ffprobe and ffmpeg

I used HomeBrew to install ffprobe and ffmpeg, which was previously installed on my Mac computer (Ventura 13.5.2). I currently have Homebrew 4.1.10 version. The following instructions will show how to install ffprobe and ffmpeg on Mac and Jupyter Notebooks.

Installation using terminal on Mac

install HomeBrew: `/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"`

install ffmpeg and ffprobe (one command):

```
brew install ffmpeg
```

confirm installation:

```
ffmpeg -version  
ffprobe -version
```

my installed versions:

```
ffprobe version 6.0  
ffmpeg version 6.0
```

Installation on Jupyter Notebooks:

I experienced issues with Jupyter Notebook when trying to import ffmpeg, but the following fixed the problem.

add path for Jupyter Notebooks to recognize ffmpeg"

```
import os  
os.environ['PATH'] = '/usr/local/bin:' + os.environ['PATH']
```

checks path configuration

```
import shutil  
shutil.which("ffmpeg")
```

check version

```
!ffmpeg -version
```

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