Deep Steganography

Install the packages

```
begin
    using Colors    , ColorVectorSpace    , ImageShow    , FileIO    , ImageIO
    using PlutoUI
    using HypertextLiteral
    using QuartzImageIO
    using Images
end
```

Get the url of the image

```
url =
"https://raw.githubusercontent.com/jonas-kgomo/deep-steganography/main/purplexl.jpg"
```

```
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"https://raw.githubusercontent.com/jonas-kgomo/deep-steganography/main/purplexl.jpg"
```

```
cover_photo = "/var/folders/sj/0q3_0t_954lfg89yl9zsv3t40000gn/T/jl_RYCnIL"
```

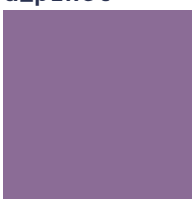
```
cover_photo = download(url)
```

```
cover =
```

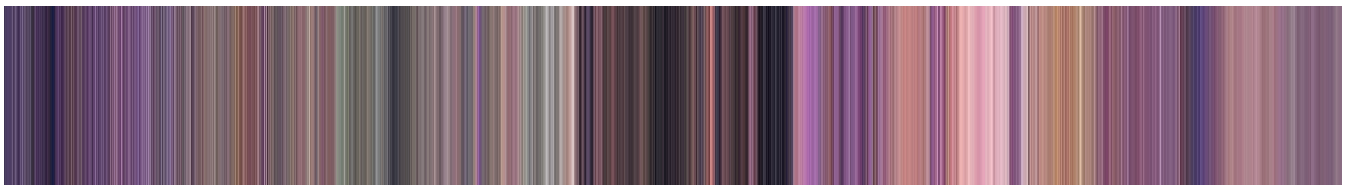
```
cover = load(cover_photo)
```

Using computational photography we can find the pixel in position (i, j)

a_pixel =



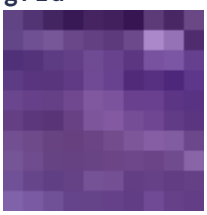
Lets collect an array of pixels in a row r



```
cover[500, :]
```

We can also collect a matrix $M_{n \times n}$

grid =



```
grid = cover[1:10, 1:10]
```

```
(10, 10)
```

```
size(grid)
```

new =
3×2 reinterpret(reshape, N0f8, mappedarray(MappedArrays.var"#7#9"{RGB{N0f8}}(), MappedArr
 0.38 0.322
 0.267 0.204
 0.518 0.455

```
new = channelview(grid[1,1:2])
```

Convert a pixel to bits

```
"01100001"
```

```
bitstring(new[1])
```

```
Enter cell code...
```

```
pnew =
```

```
pnew = colorview(RGB, new)
```

```
UndefVarError: colorize not defined
```

1. **top-level scope** @ *Local: 1*

```
colorize(new)
```