myGF

my Grocery Finder

A DSI Capstone Presentation

Hello!

I am Jeryl Ong

You can find me at jerylcodes.github.io.

QR code:

> **_Imagine_** _this:_
> _You are in a supermarket,_
> _looking for your favourite brand_
> _of coffee/tea. You arrive at the_
> _beverage section and all you_
> _see is rows of unknown brands..._

Find waldo.

Introducing myGF

- An image classification project to classify groceries

- Utilises deep learning: Convolutional Neural Networks

- Potential integration in customer service, logistics and even e-commerce
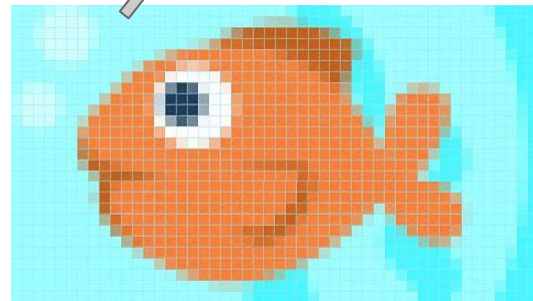
1

Key concepts

Let's refresh some concepts applied in this project.

Images

- Graphics, pictures, photographs, jpeg, png etc

- Essentially made up of pixels

- Pixels are number values!
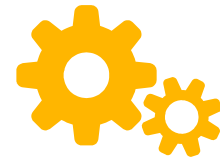
Pixel: (55, 66, 77)

(red, green, blue)

Convolutional Neural Networks
(CNN, ConvNet)

ConvNet process

first ——— **second** ——— **third** ——— **last**

Convolution	**Rectified Linear Unit Activation**	**Pooling**	**Fully Connected Layer**
Slide a filter window to obtain features.	Preserve non-linearity (Negative pixel values).	Reduce matrix dimensions.	Connecting previous layer outputs to output layer.

Convolution + ReLU — Pooling — Convolution + ReLU — Pooling — Fully Connected — Fully Connected — Output Predictions

dog (0.01)
cat (0.04)
boat (0.94)
bird (0.02)
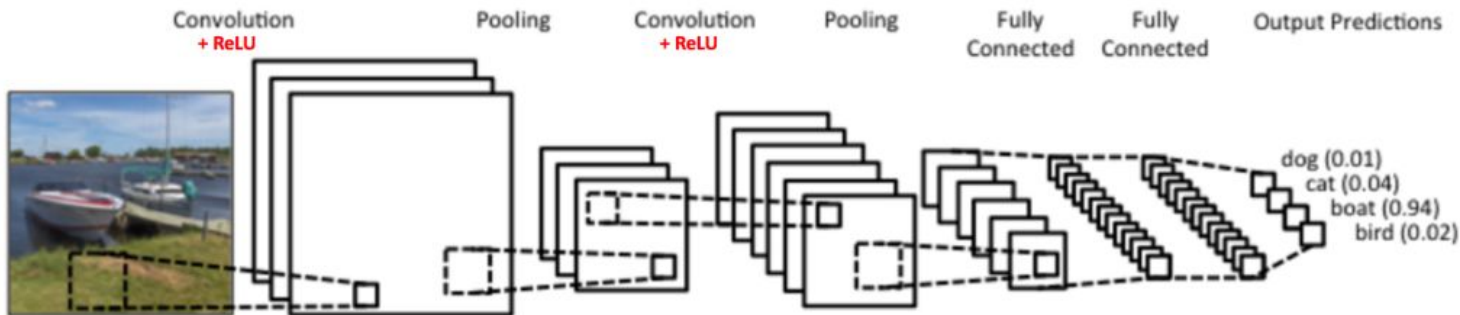
Use **photographs** to predict class (**google images**)

Photographs

Google Images

3

Code

Thanks!

Any questions?

You can find me at jerylcodes.github.io

QR code:

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Big concept

Bring the attention of your audience over a key concept using icons or illustrations
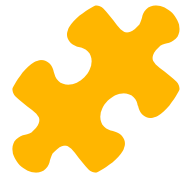
In two or three columns

Yellow

Is the color of gold, butter and ripe lemons. In the spectrum of visible light, yellow is found between green and orange.

Blue

Is the colour of the clear sky and the deep sea. It is located between violet and green on the optical spectrum.

Red

Is the color of blood, and because of this it has historically been associated with sacrifice, danger and courage.

A picture is worth a **thousand** words

A complex idea can be conveyed with just a single still image, namely making it possible to absorb large amounts of data quickly.

And tables to compare data

	A	B	C
Yellow	10	20	7
Blue	30	15	10
Orange	5	24	16

Maps

our office

89,526,124

Whoa! That's a big number, aren't you proud?

89,526,124$
That's a lot of money

185,244 users
And a lot of users

100%
Total success!

Let's review some concepts

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Red
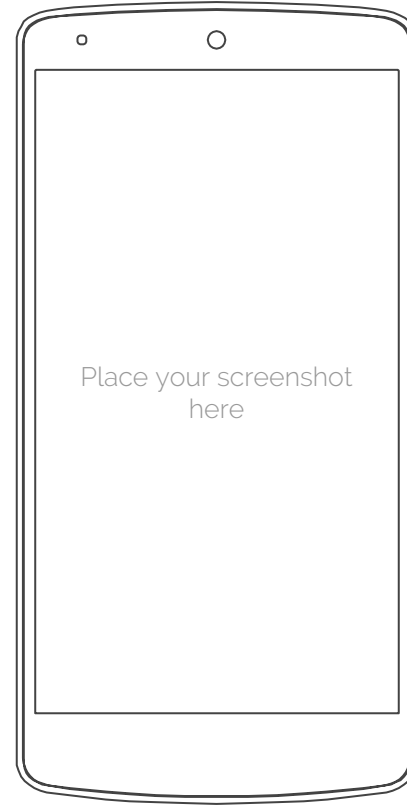
Is the color of blood, and because of this it has historically been associated with sacrifice, danger and courage.
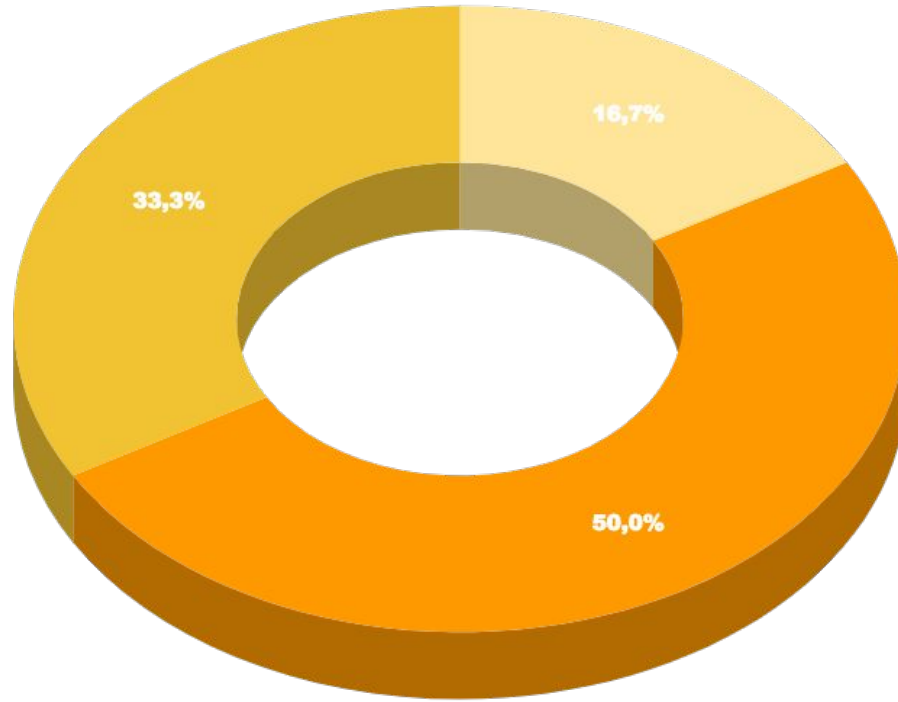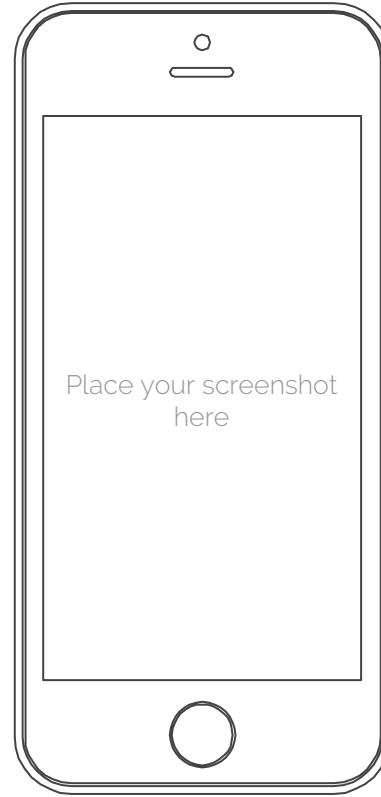
You can insert graphs from Google Sheets

Android

project

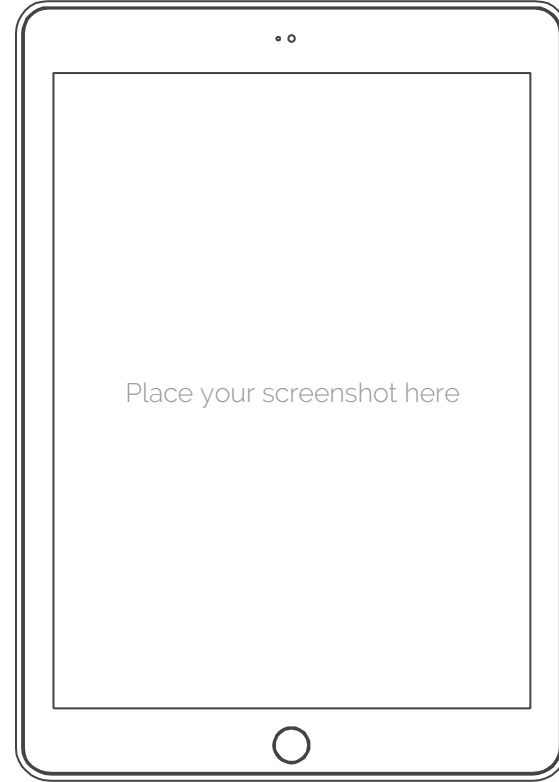Show and explain your web, app or software projects using these gadget templates.

Place your screenshot here

iPhone project

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Place your screenshot here

Tablet

project

Show and explain your web, app or software projects using these gadget templates.

Place your screenshot here

Desktop project

Show and explain your web, app or software projects using these gadget templates.

Place your screenshot here
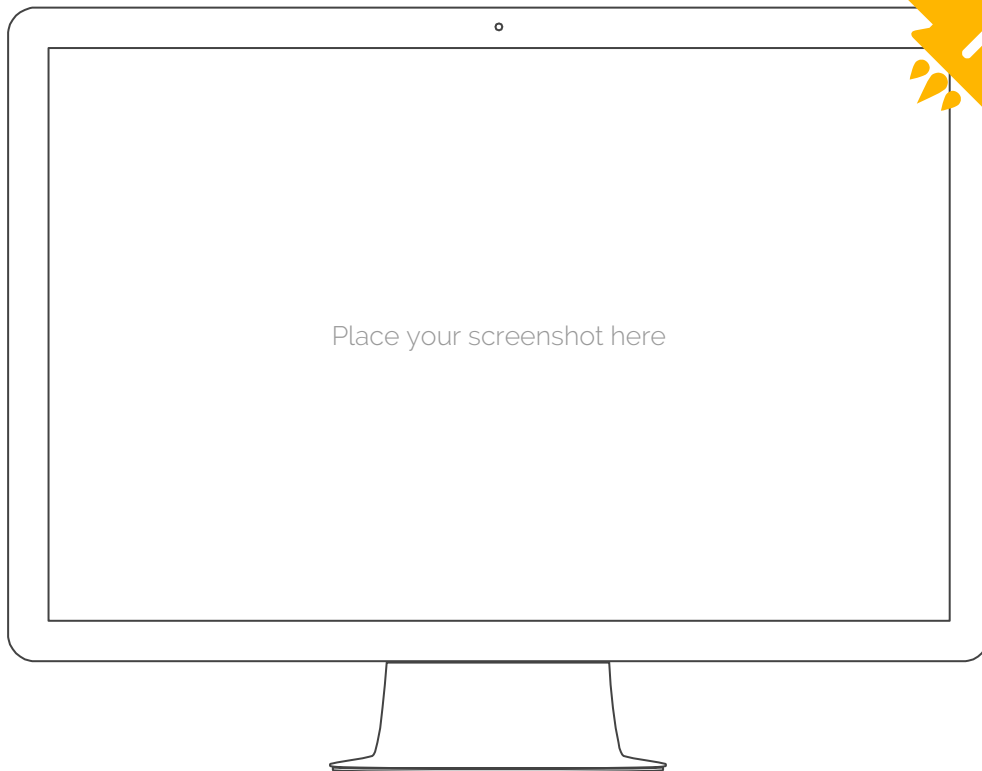
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- Photographs by Unsplash

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Examples: