

# Introduction to Machine Learning

**Comdet Phaudphut**

888 Pongpanghi mansion M.12 T.sila, MOUNG, Khon Kaen 40000  
Tel. 080-1947273, [phudphut@gmail.com](mailto:phudphut@gmail.com), [fb.com/comdet](https://fb.com/comdet)

## Work Experience

### Khon Kaen Maker Club, Khon Kaen

#### President & Head Advisor

October, 2016 - Present

- ✓ Internet of Things Research and Development
- ✓ Embedded System Development
- ✓ Smart Farm and Smart Home Development
- ✓ IoT Advisor
- ✓ Certified NETPIE Trainer (NECTEC)

### Department of Computer Science, KKU, Thailand

#### Machine Learning & Soft-Computing Researcher, Apply Network Technology Lab

September 2014 - Present

- ✓ ECG Classification using Soft-Computing
- ✓ Parallel Machine Learning research
- ✓ Wireless and Network research

### Department of Computer Science, KKU, Thailand

#### Teaching assistant(Network I, Information and Communication Technology Security, Wireless and Mobile Communication Networks)

June, 2015 – Present

- ✓ Computer Network ;
- ✓ Information and Communication Technology Security ;
- ✓ Wireless and Mobile Communication Networks ;

## Key Skills

Experienced or proficient in major of computer science, Internet of Things, Machine learning, Embedded System.

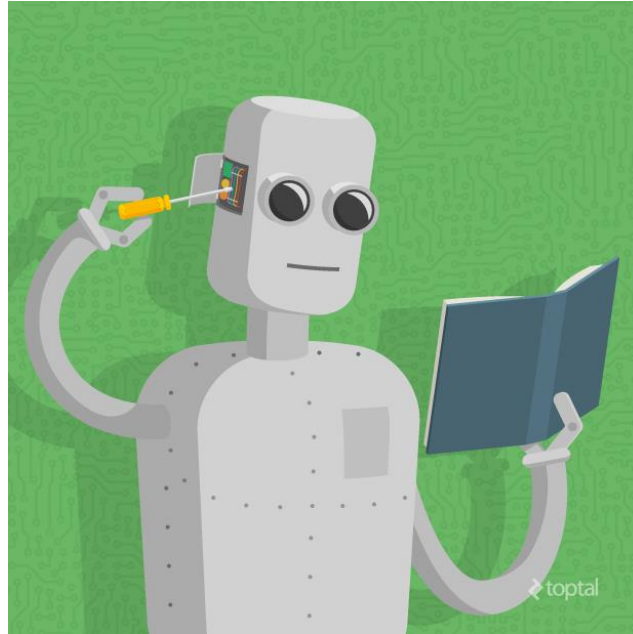
C#, Matlab  
JAVA, Python, C, Nodejs

Machine Learning, AI  
Chatbot, Big Data

Tensorflow, Caffe  
R Lang, Torch 7, CNN

IoT, NodeMCU, Arduino  
Raspberry Pi

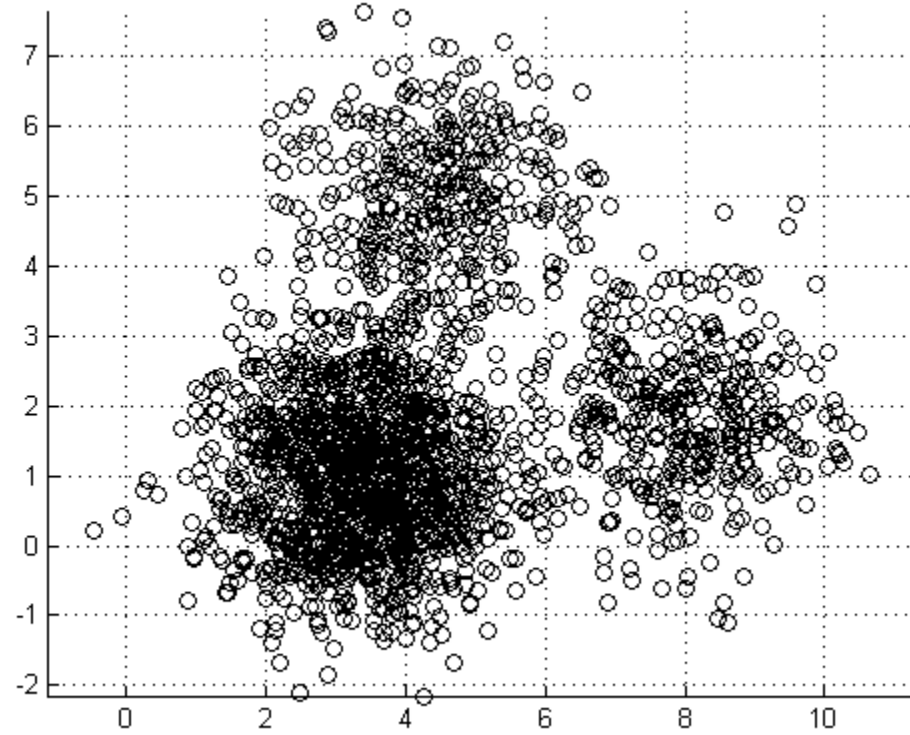
# What's Machine Learning



- **Machine Learning** เป็นศาสตร์แขนงหนึ่งที่ทำให้คอมพิวเตอร์มีความสามารถในการเรียนรู้ด้วยตนเอง เมื่อมีข้อมูลเข้าสามารถทำนายหรือตัดสินใจได้โดยปราศจากการทำงานตามลำดับคำสั่งโปรแกรม แปลไทยเป็นไทยอีกรอบก็คือสามารถคิดได้ด้วยตนเองนั่นเอง

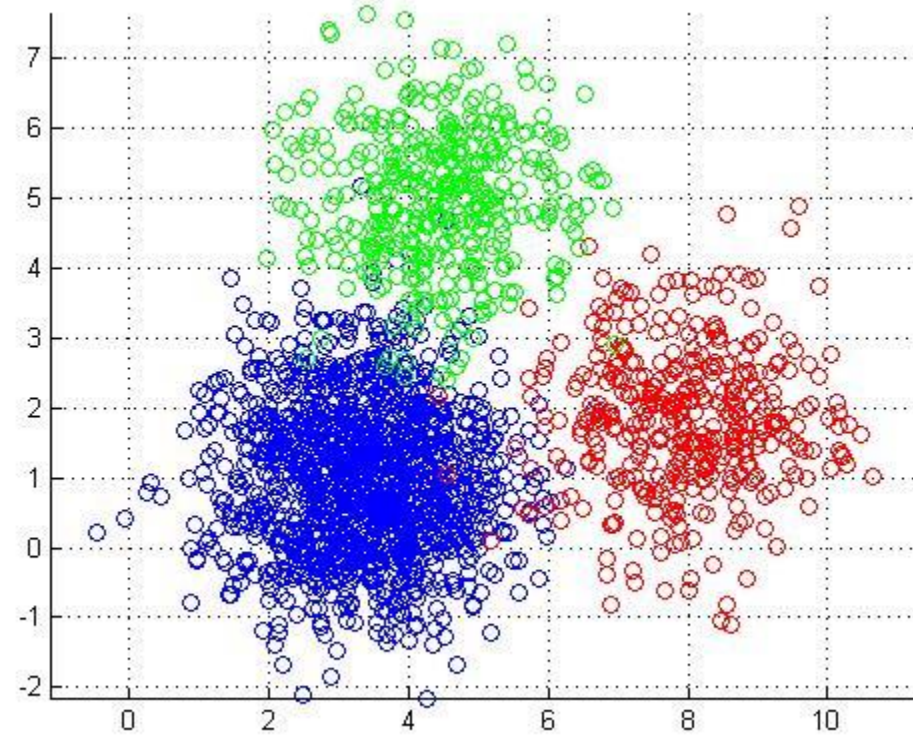


# Unsupervised



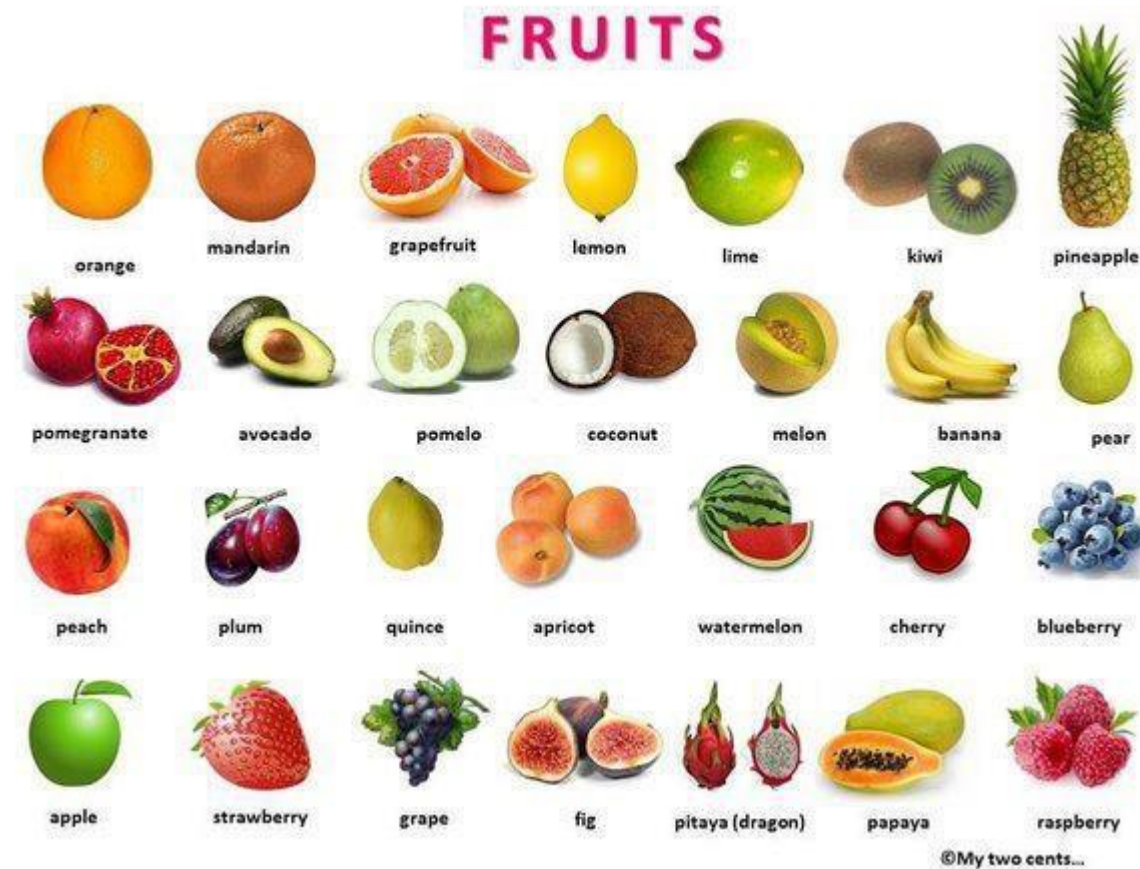
- How many group in this images

# Unsupervised



- How many group in this images

# Supervised

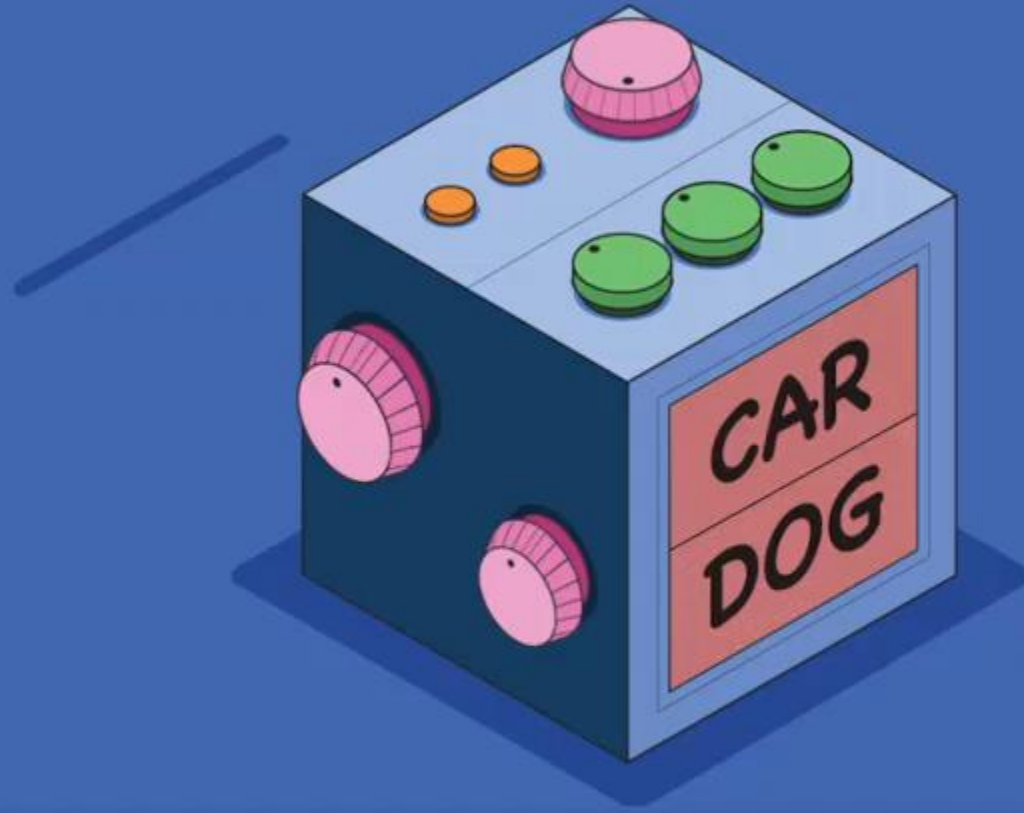


- You're loss memory and doctor keep telling you what 'this' things is.

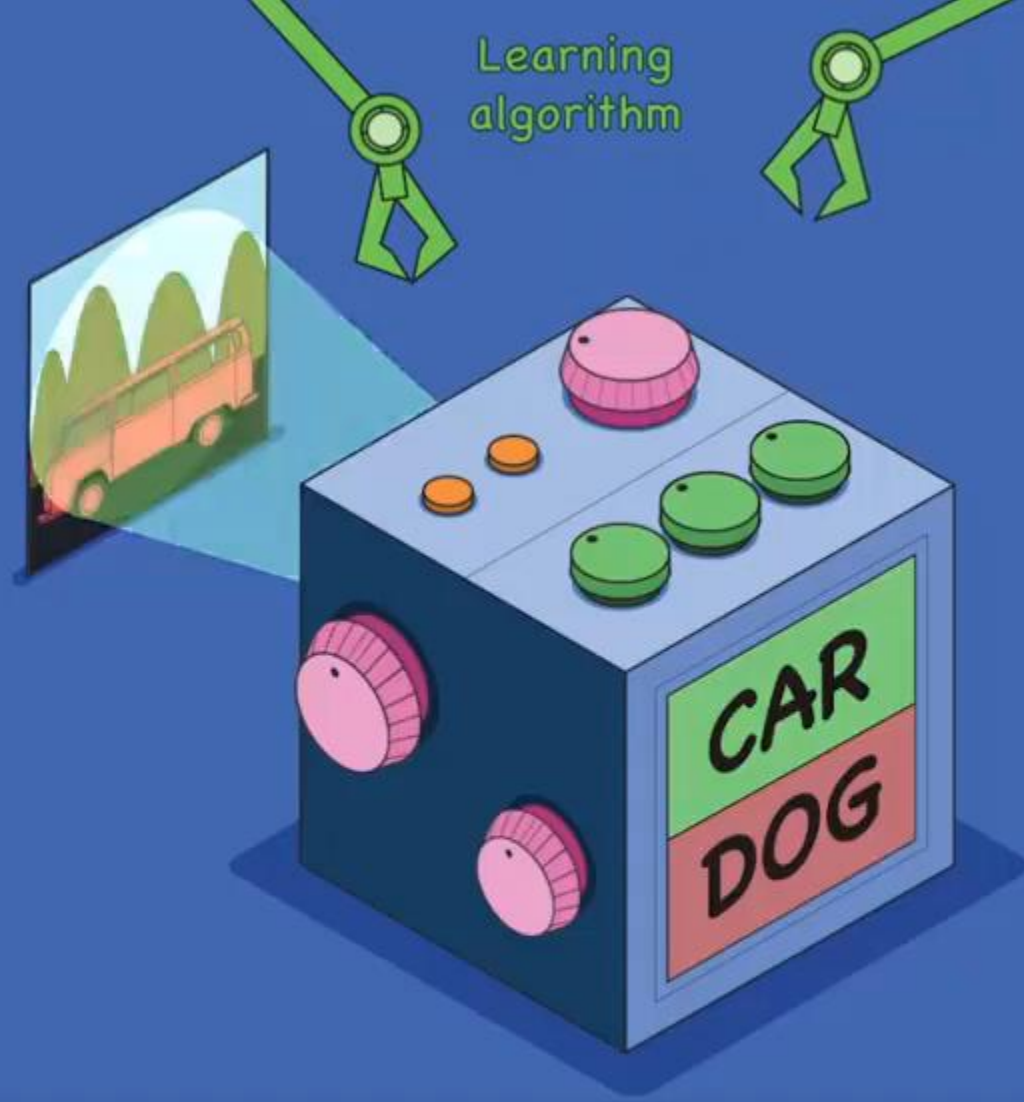




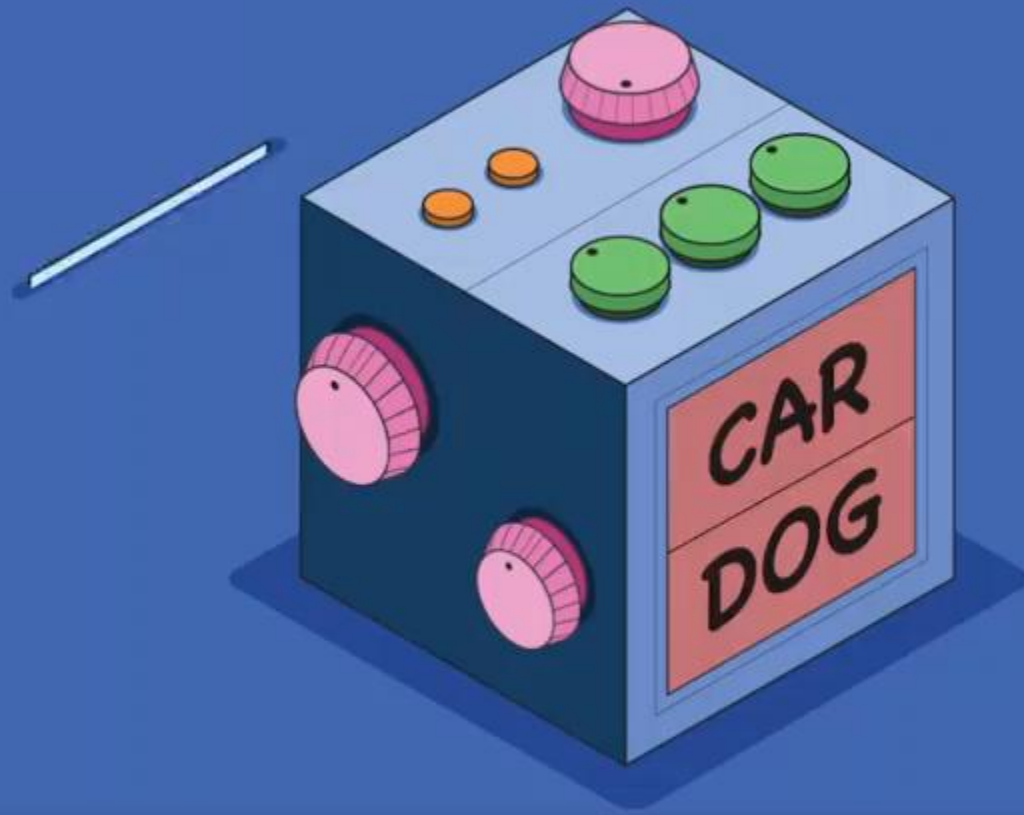
So a typical example is that you want to build a machine  
that recognizes images



because it's kind of random a little bit.



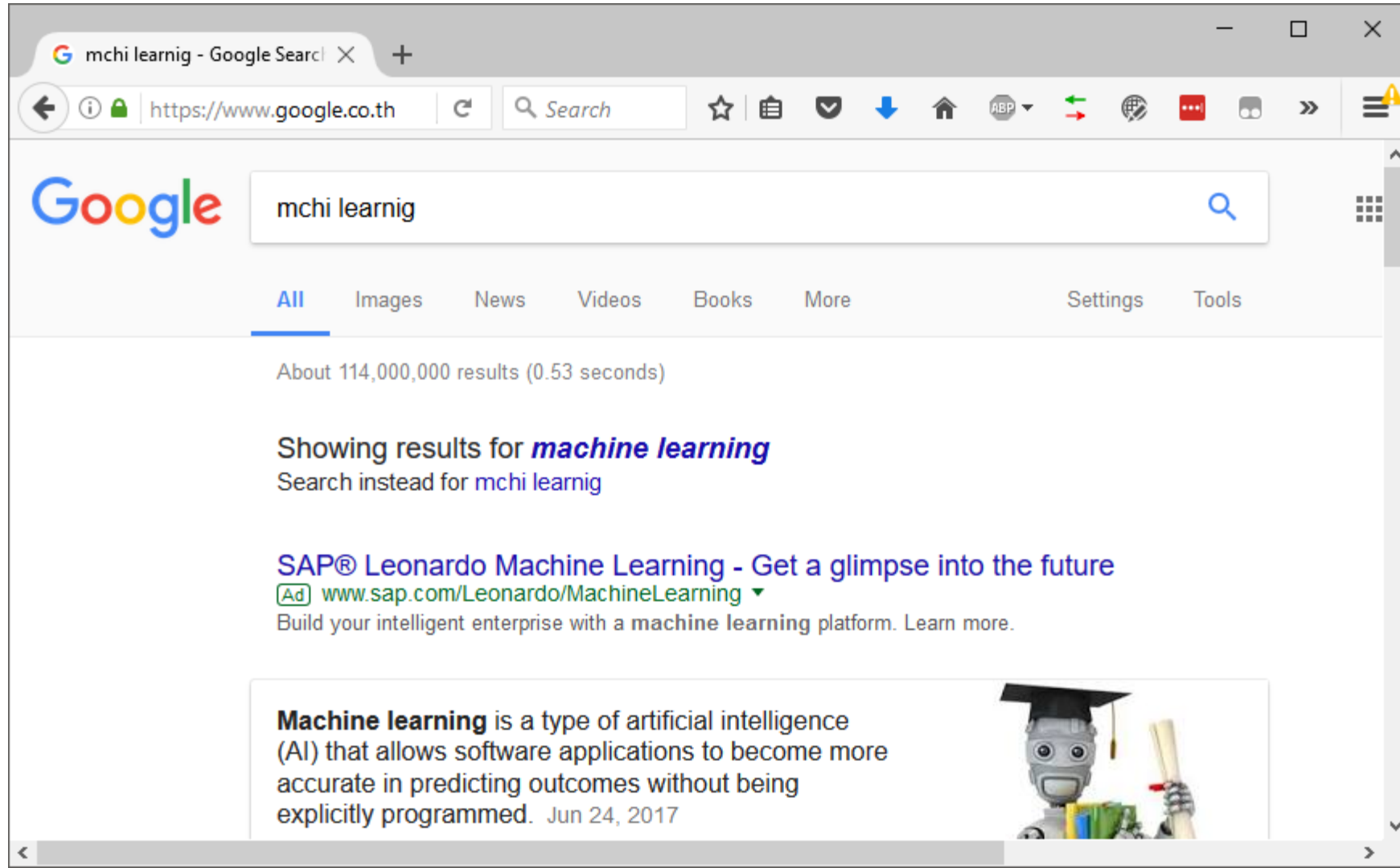
And that what's the learning algorithm is really, is the technique for adjusting the parameters.



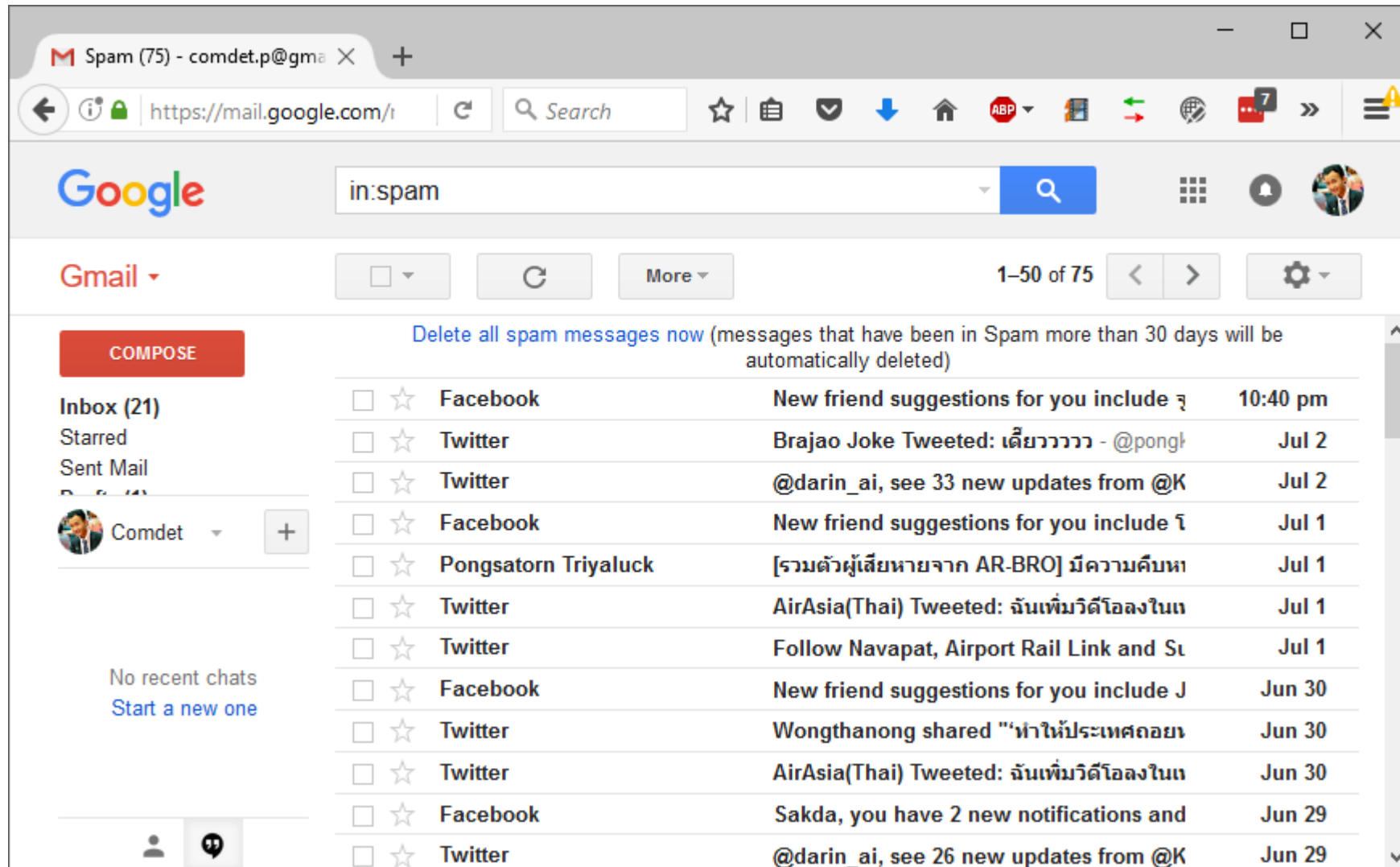
and it will give you the right answer for all the good proportion of all the images you showed.



# Example ML in real life

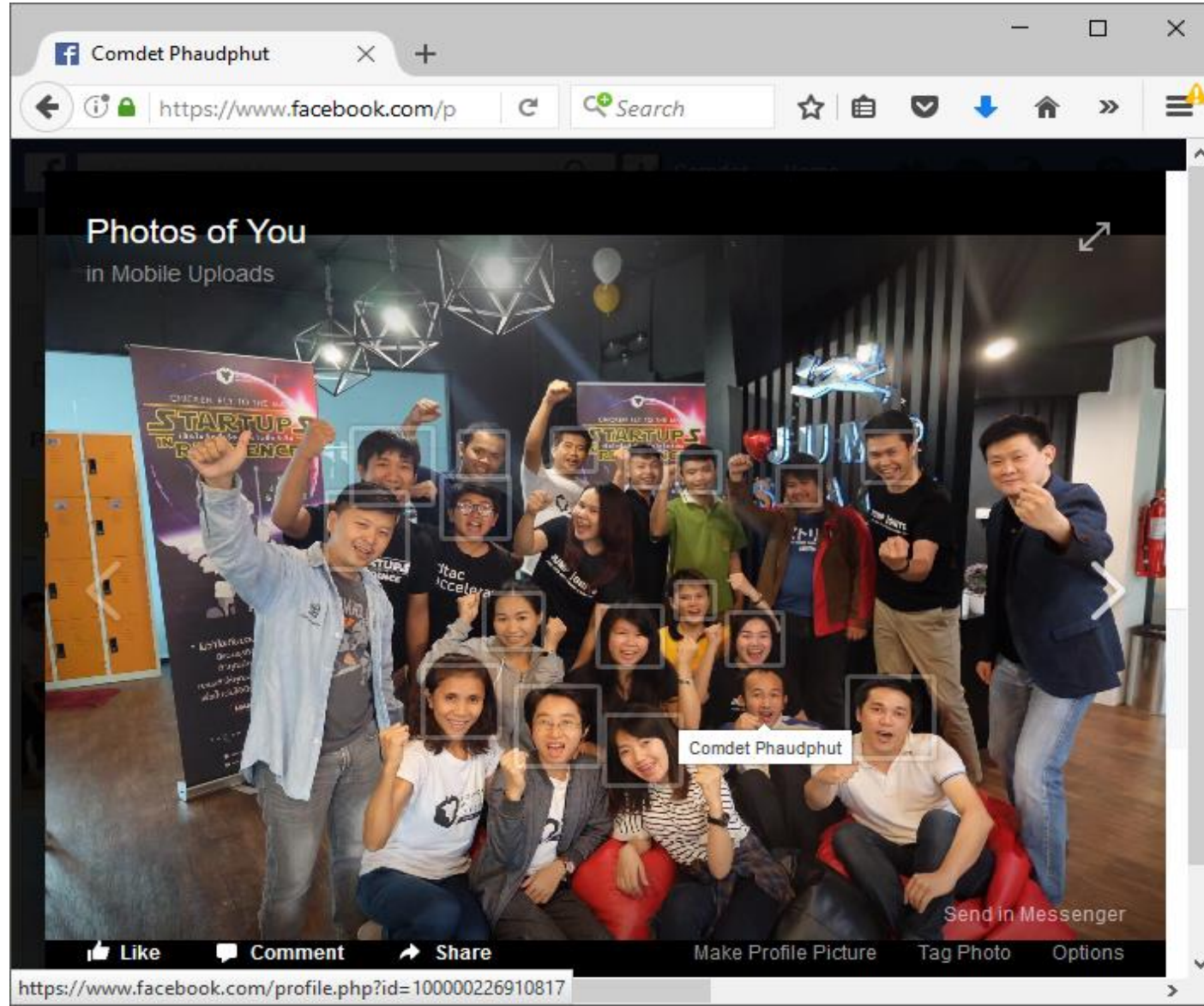


# Example ML in real life





# Example ML in real life





# Example ML in real life



# Example ML in real life



# Example ML in real life


Google Search

https://www.google 70% Search

Google dog.jpg x yolo darknet

All Images Maps More Settings Tools

About 20,400,000 results (0.89 seconds)


 Image size: 768 x 578  
Find other sizes of this image: All sizes - Small - Medium

Best guess for this image: **yolo darknet**

**YOLO: Real-Time Object Detection - Joseph Redmon**  
<https://pjreddie.com/darknet/yolo/>  
This post will guide you through detecting objects with the YOLO system using a pre-trained model. If you don't already have Darknet installed, you should do ...

**GitHub - pjreddie/darknet: Convolutional Neural Networks**  
<https://github.com/pjreddie/darknet>  
Convolutional Neural Networks. Contribute to darknet development by creating an account on GitHub.

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