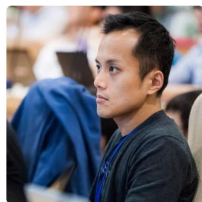


iThome #CHATBOT DAY

透過 Golang 無痛建置機器學習聊天機器人

Evan Lin @ Linker Networks

About Me

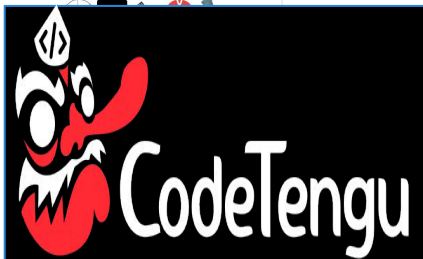


Evan Lin
kkdai

Attitude is Everything. Love
Golang. @golangtw Co-Organizer
@CodeTengu Curator

📍 Taipei, Taiwan
🌐 <https://about.me/iffenglin>

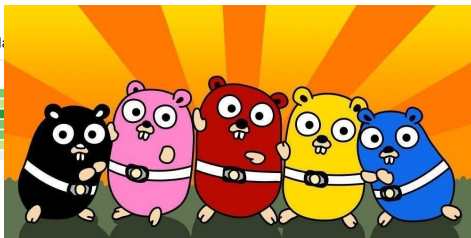
Organizations



Overview Repositories 134 Stars 1.2k Followers 225 Following 165

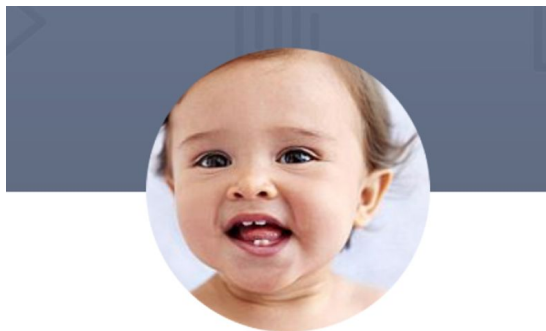
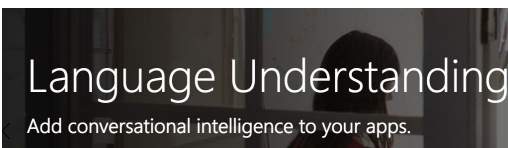
Popular repositories Customize your pinned repositories

project52 52 weeks, 52 Go projects ★ 212 🍏 27	FBBotTemplate A simple Golang Facebook Bot Template and tutorial ● Go ★ 60 🍏 11
LineBotTemplate A simple Golang LineBot Template and tutorial how to setup on Heroku for Line Bot API ● Go ★ 51 🍏 99	maglev A Google Maglev Hashing Algorithm implement in Golang ● Go ★ 31 🍏 7
LineBotPetNeedMe Animal Adoption Platform on Line Bot (流浪動物需要你 Line 機器人) ● Go ★ 26 🍏 4	luis Microsoft Luis.ai API Golang package ● Go ★ 23 🍏 2



- Cloud Architect @ Linker Networks
- Golang User Group - Co-Organizer
- Top 5 Taiwan Golang open source contributor (github award)
- Developer, Curator, Blogger

Three chatbots



 **Baby talk bot**



ASKME Animal

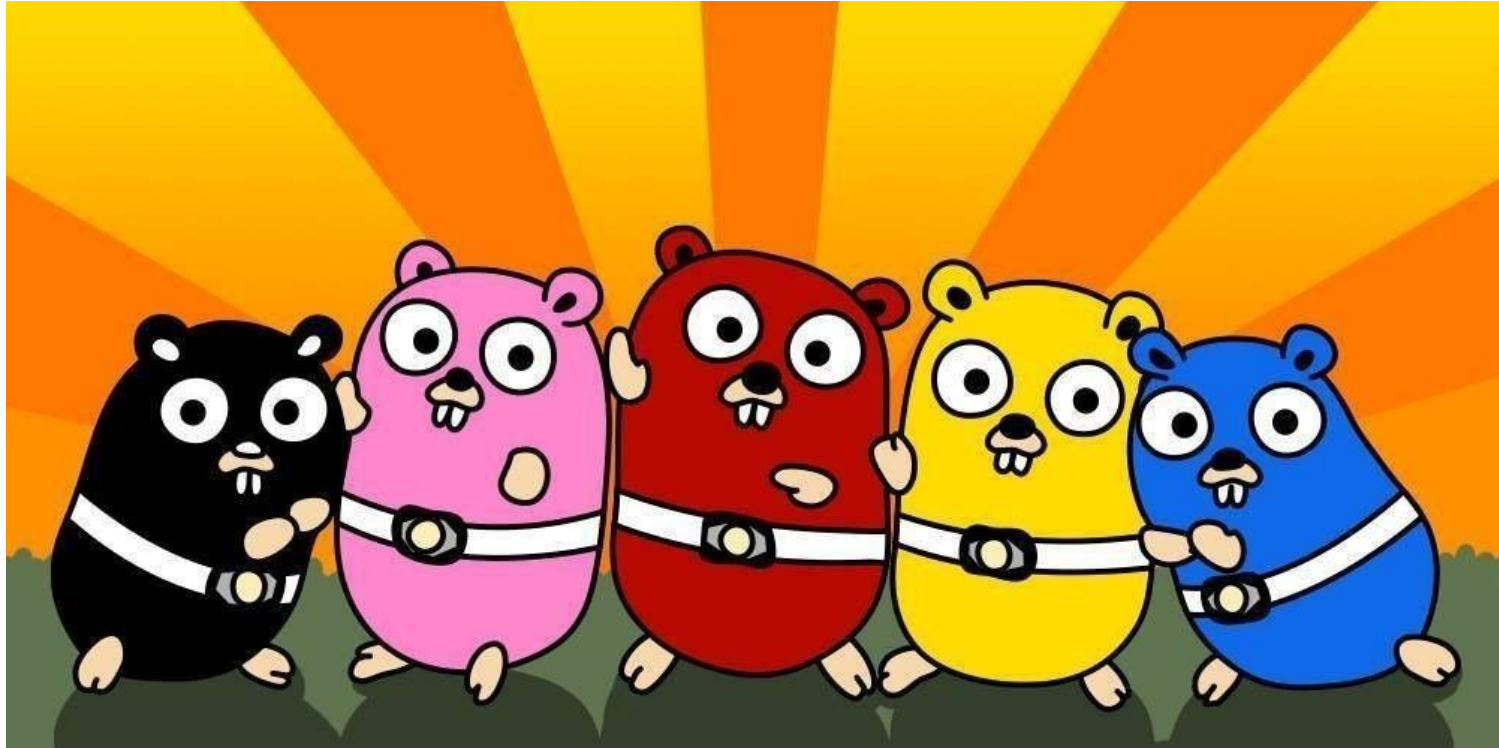


First: Build a line
chatbot within 3
minutes

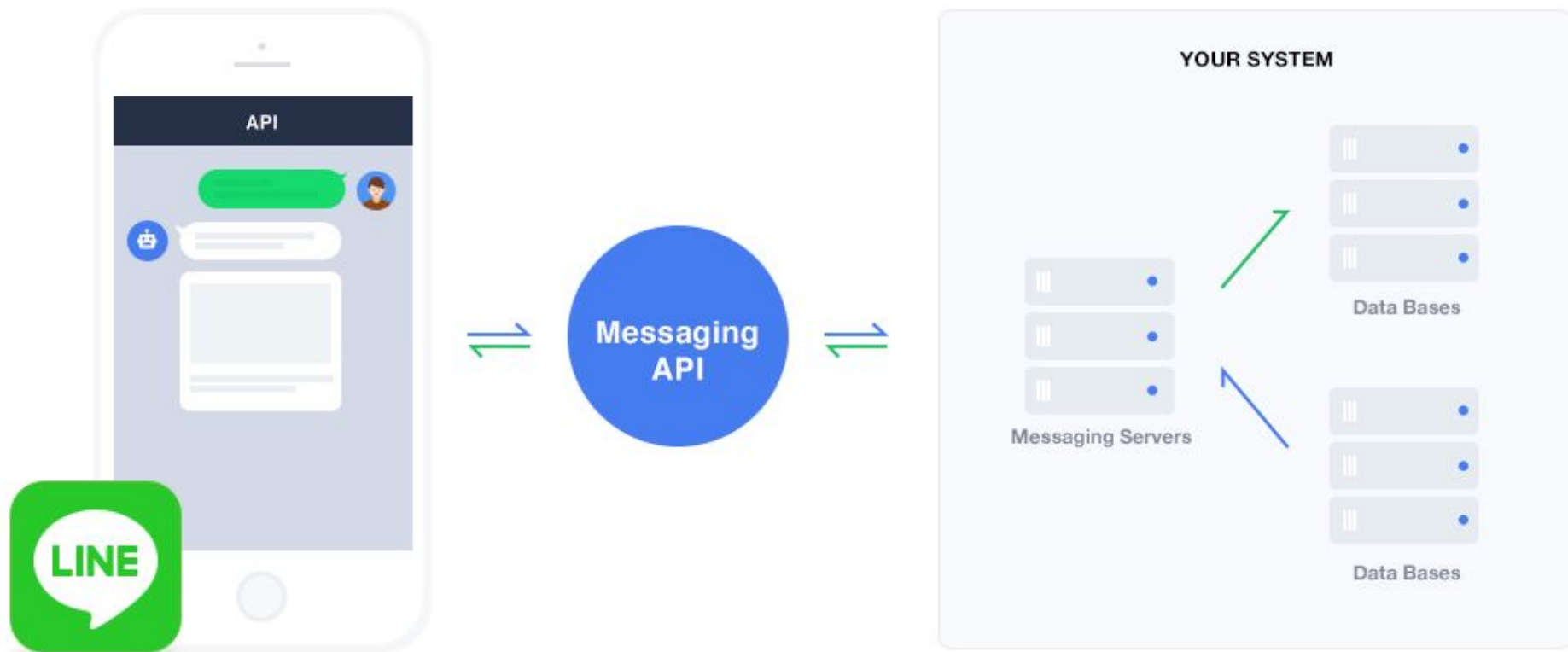
How to choose programming language for Chat Bot?

- Easy to Write
- Fast in Run and Compile
- Powerful Concurrency
- Powerful Built-in Toolchain

Go Go Powe Ranger



Line Message API



Deploy Line Bot Just one click

LineBotTemplate: A simple Golang LineBot Template for Line Bot API

chat on gitter

godoc reference build unknown

Installation and Usage

1. Got A Line Bot API developer account

Make sure you already registered, if you need use Line Bot.

2. Just Deploy the same on Heroku

 Deploy to Heroku

Remember your heroku, ID.

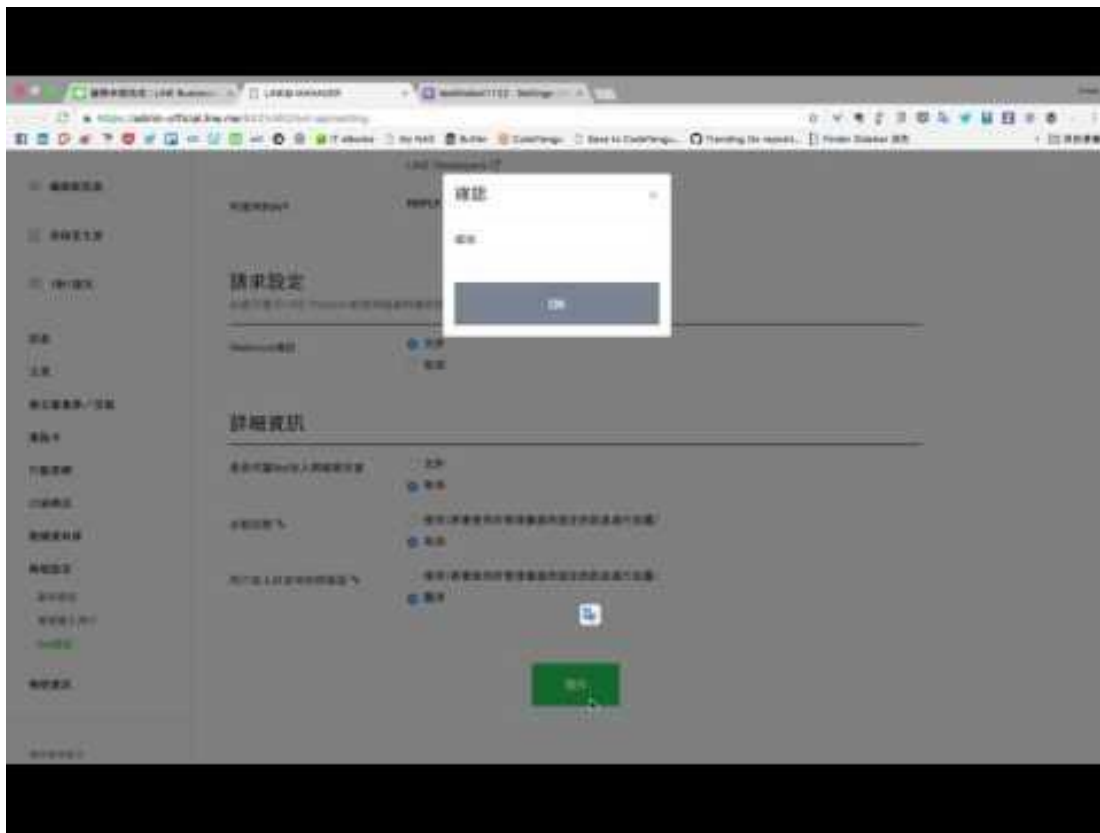
<https://github.com/kkdai/LineBotTemplate>



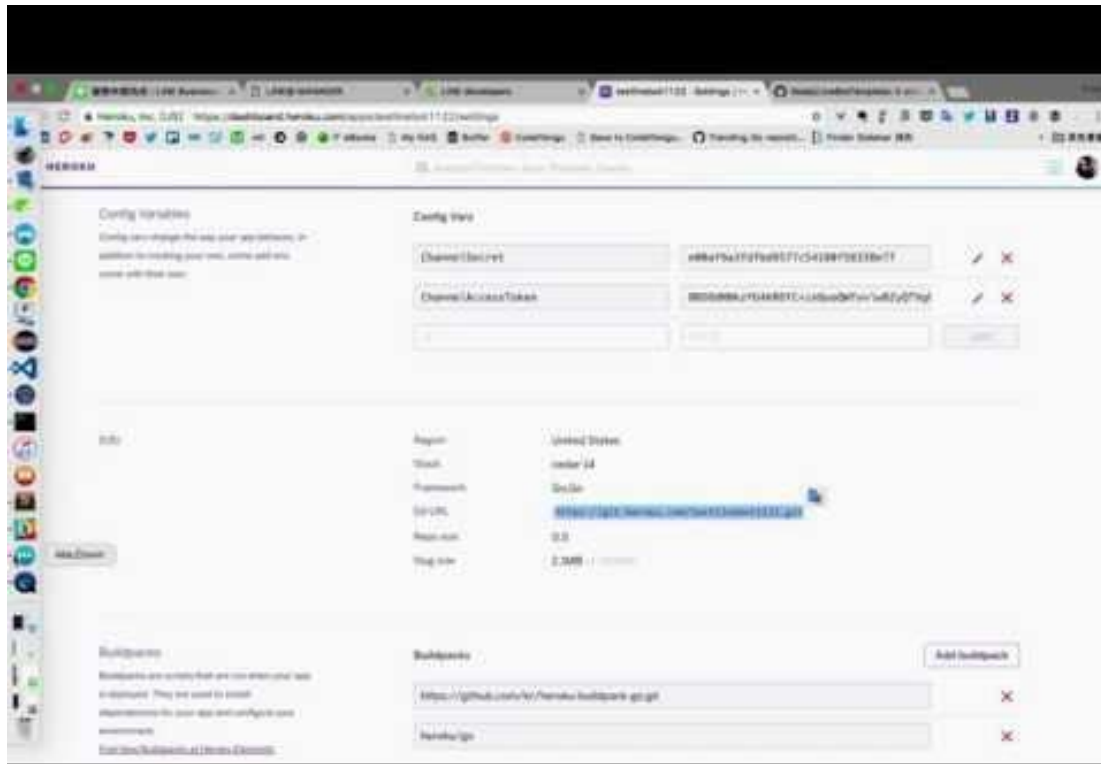
Let's Demo on video



How to deploy Line Bot in 3 minutes

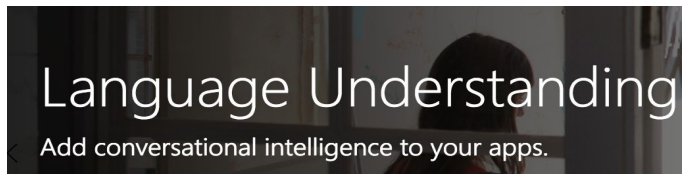


Ok! How can I modify code



PetNeedMe: 流浪動物領養Line機器人





 **Baby talk bot**

Second: Build a line chatbot with LUIS.AI



What is LUIS.AI

Cognitive Services

Language Understanding

[Docs](#)

[Pricing](#)

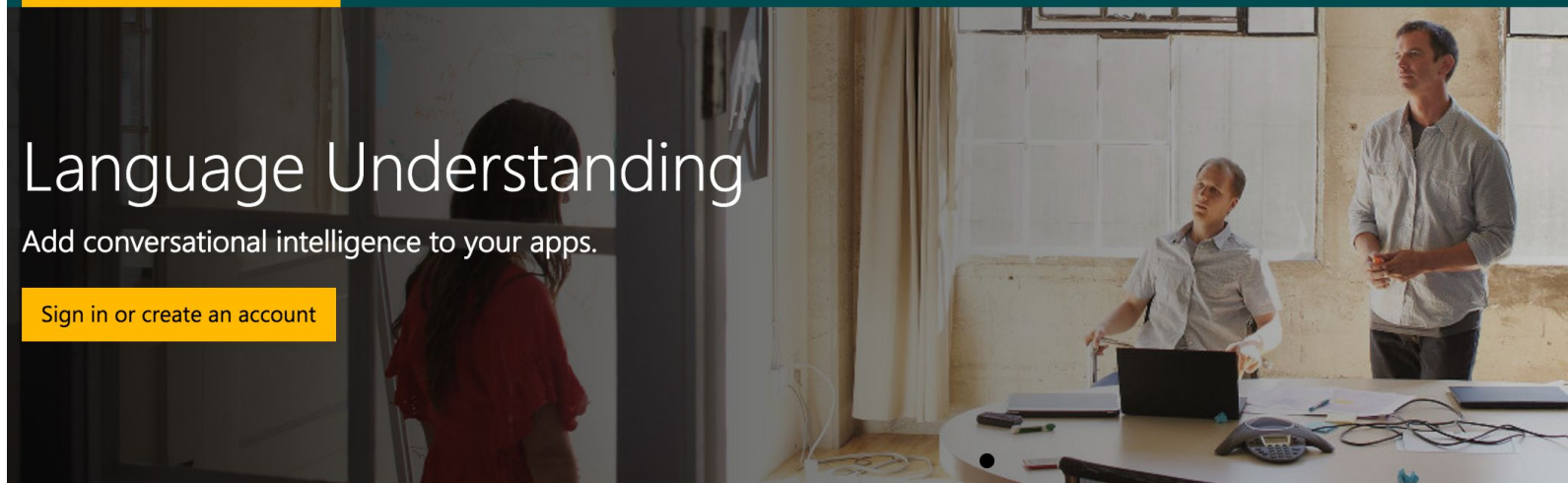
[Support](#)

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Language Understanding

Add conversational intelligence to your apps.

[Sign in or create an account](#)



Language Understanding Intelligent

台北天氣
怎麼樣?

去台北需要
帶傘嗎?

台北冷
嗎?

台北天氣如何?

台北有
下雨嗎?

台北天空是
什麼顏色?

台北天
氣好嗎?

LUIS: Intent and Entity

台北天氣如何

Intent: Check Weather

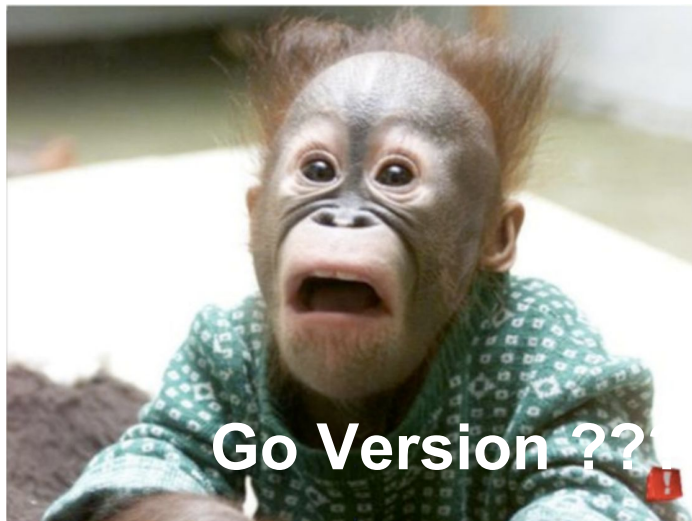
Entity: Taipei

LUIS SDKs

SDKs available for LUIS

C#

C #



Go Version ??



Python

LUIS Go package

 This repository Search Pull requests Issues Gist ToDo

kkdai / luis Unwatch 3 Unstar 22 Fork 2

<> Code Issues 0 Pull requests 0 Boards Reports Projects 0 Wiki

Microsoft Luis.ai API Golang package <https://www.luis.ai> Edit

Add topics

12 commits 1 branch 0 releases 1 contributor MIT

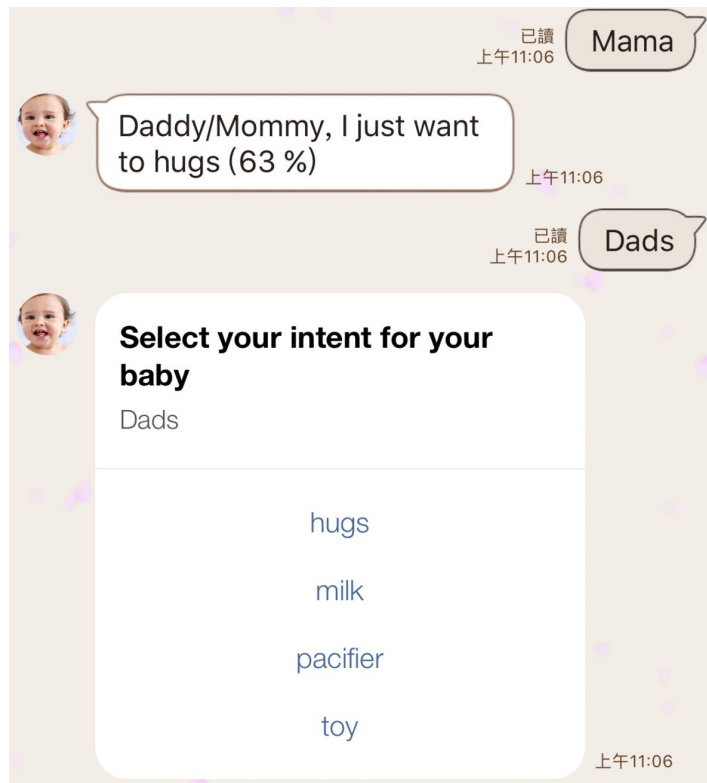
Branch: master New pull request Create new file Upload files Find file Clone or download

 kkdai Fixed test Latest commit 82ca1a1 25 days ago

images	Update document by new luis UI	2 months ago
.gitignore	init project	5 months ago
.travis.yml	init project	5 months ago
LICENSE	init project	5 months ago
README.md	Update README.md	26 days ago
client.go	Implement Predict, Actions	5 months ago
doc.go	init project	5 months ago



Baby LUIS Chatbot



Total intents

Baby Language

Dashboard

Intents

Entities

Features

Train & Test

Publish App

← Back to App list

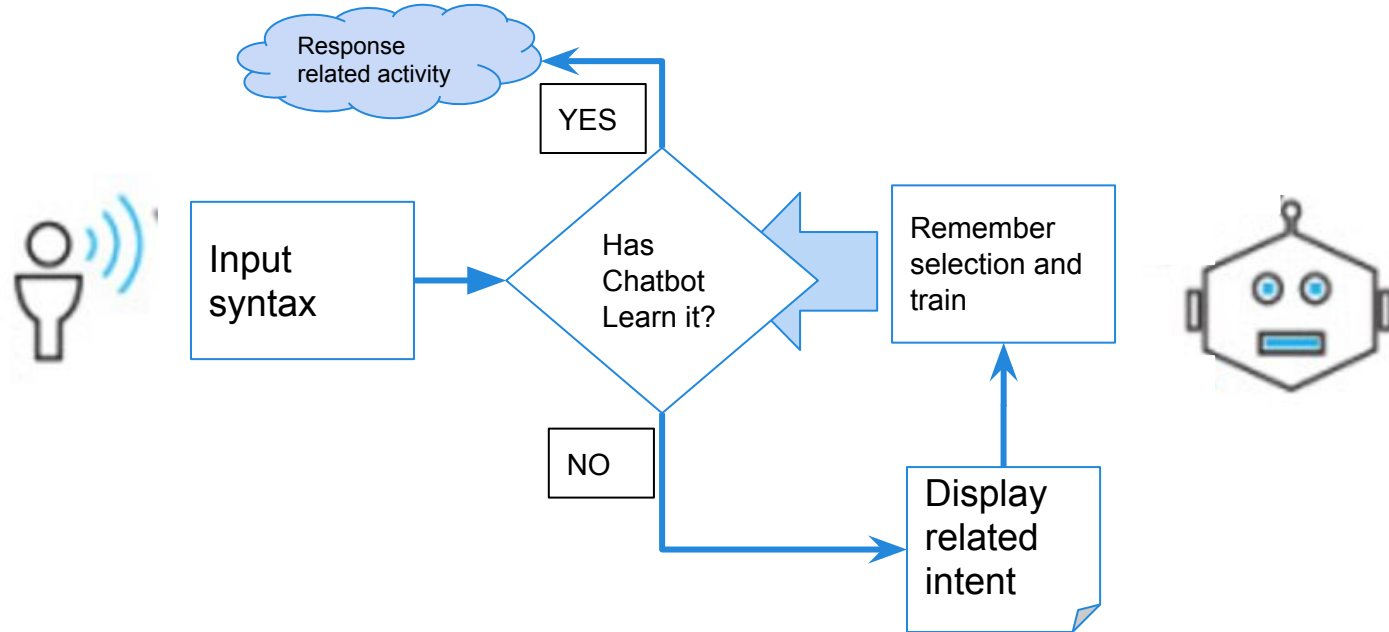
None

Here you are in full control of this intent; you can manage its utterances, used entities and suggested utterances ... [Learn more](#)

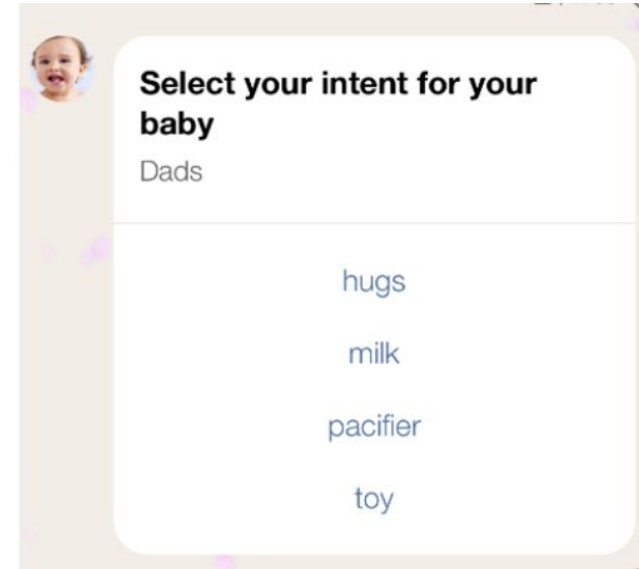
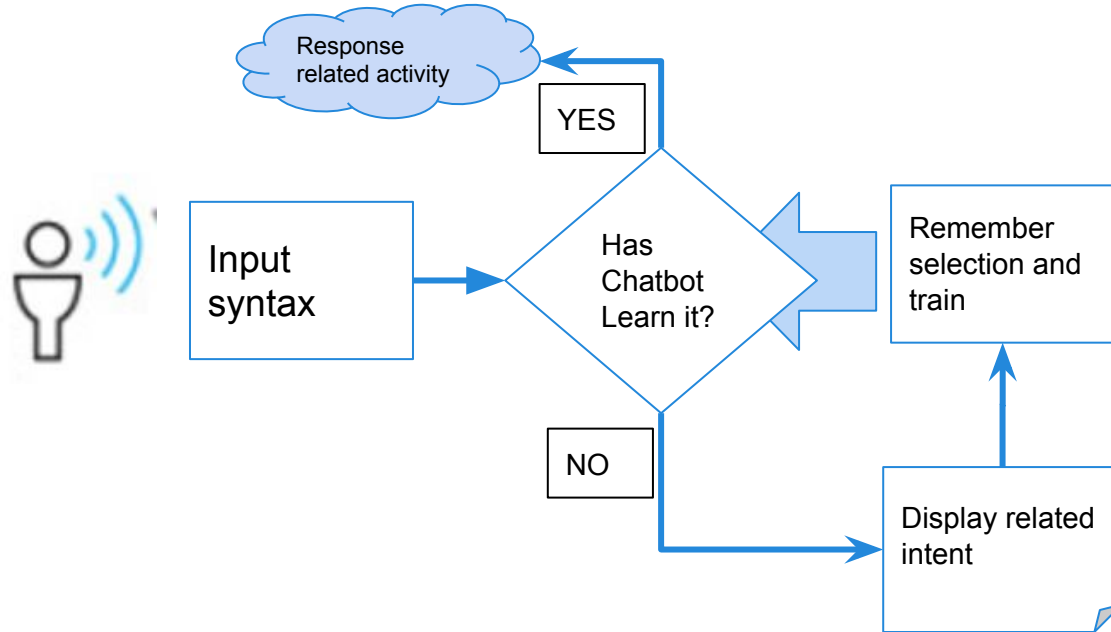
Utterances Entities in use Suggested utterances

Type a new utterance & press Enter ...		×
 Save  Discard  Delete Reassign Intent ▾		Labels view (Ctrl+E): Entities ▾ Search in utterances 🔍
☐	Utterance text	Predicted Intent
☒	toy	Not trained
☒	hug	Not trained
☒	milk	Not trained
☒	hungry	Not trained

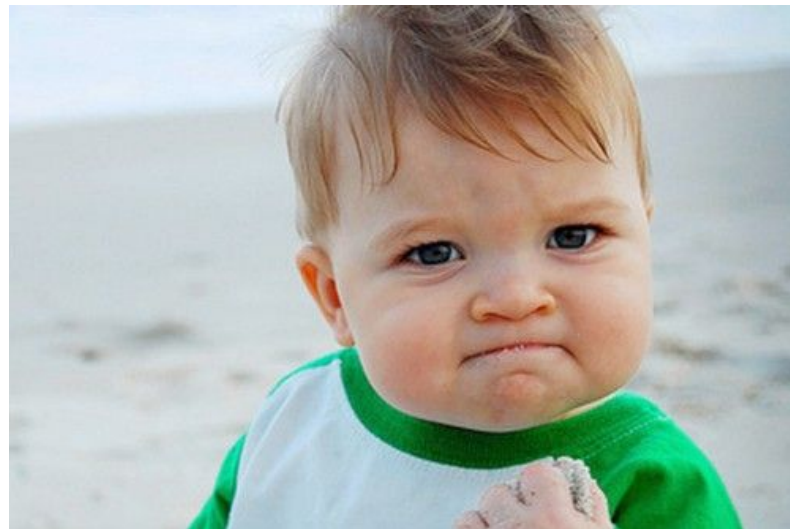
How to train your baby (chatbot)



How to train your baby (chatbot)



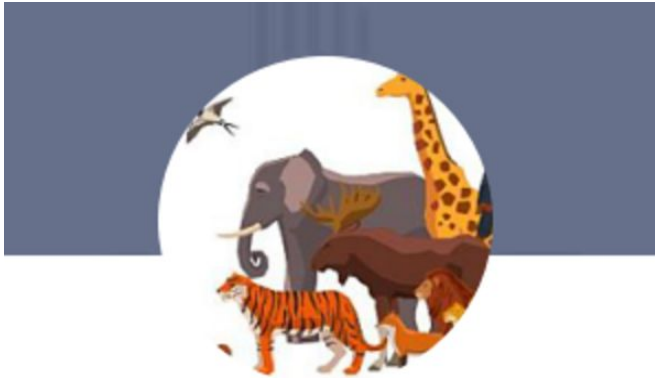
Daddy, I have learned!



Github:

LUIS Go package <https://github.com/kkdai/luis>

Line baby LUIS <https://github.com/kkdai/LineBotBabyLuis>

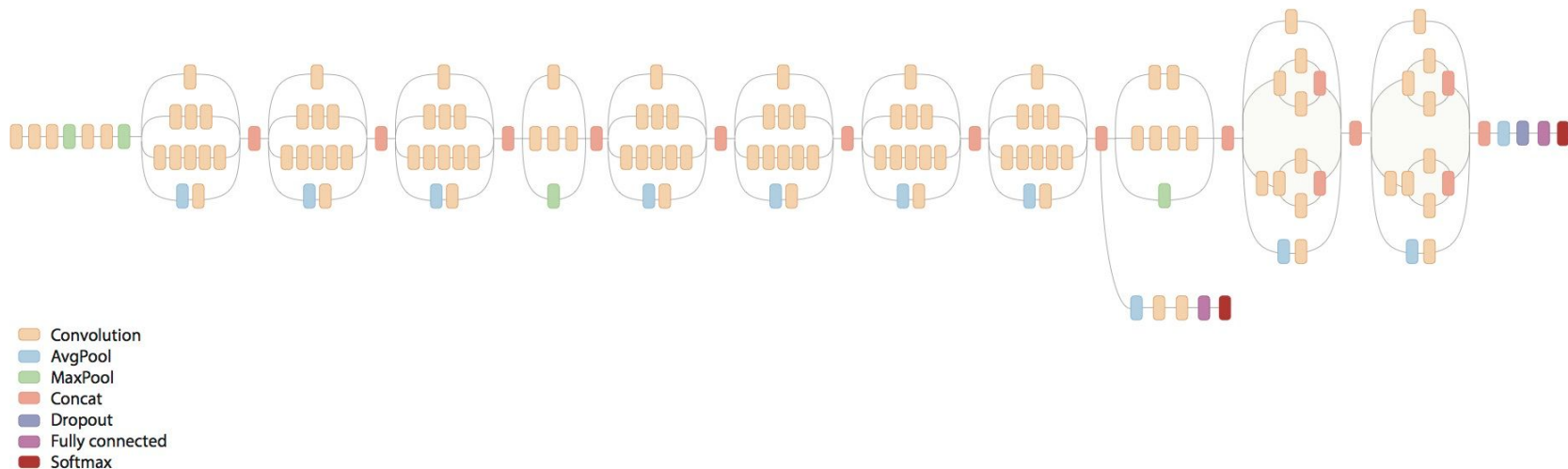


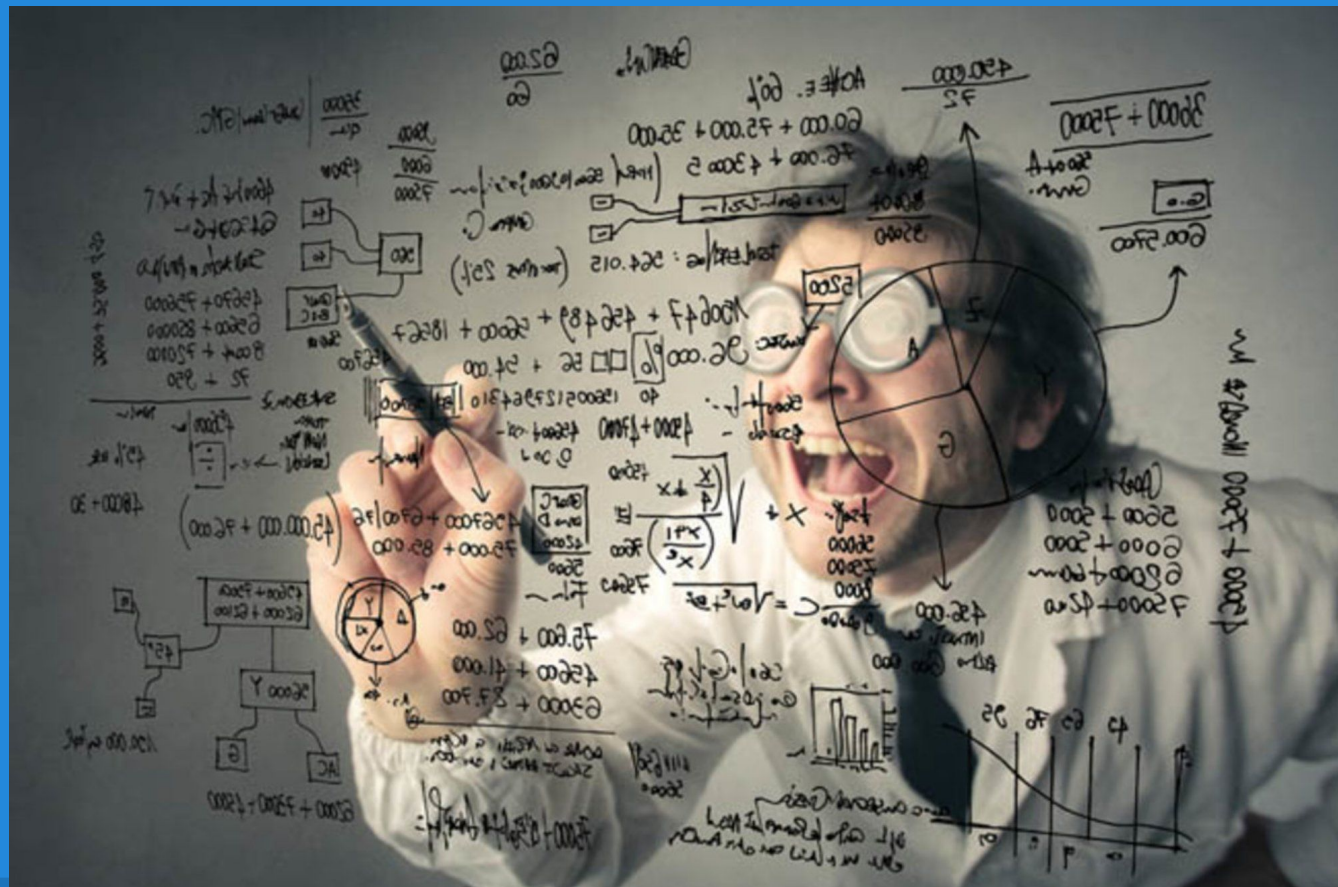
ASKME Animal

Final: Build a line chatbot with deep learning - Tensorflow



Tensroflow Inception Model Graph

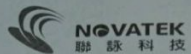




It is so hard to be a data scientist until ...



You got some great books



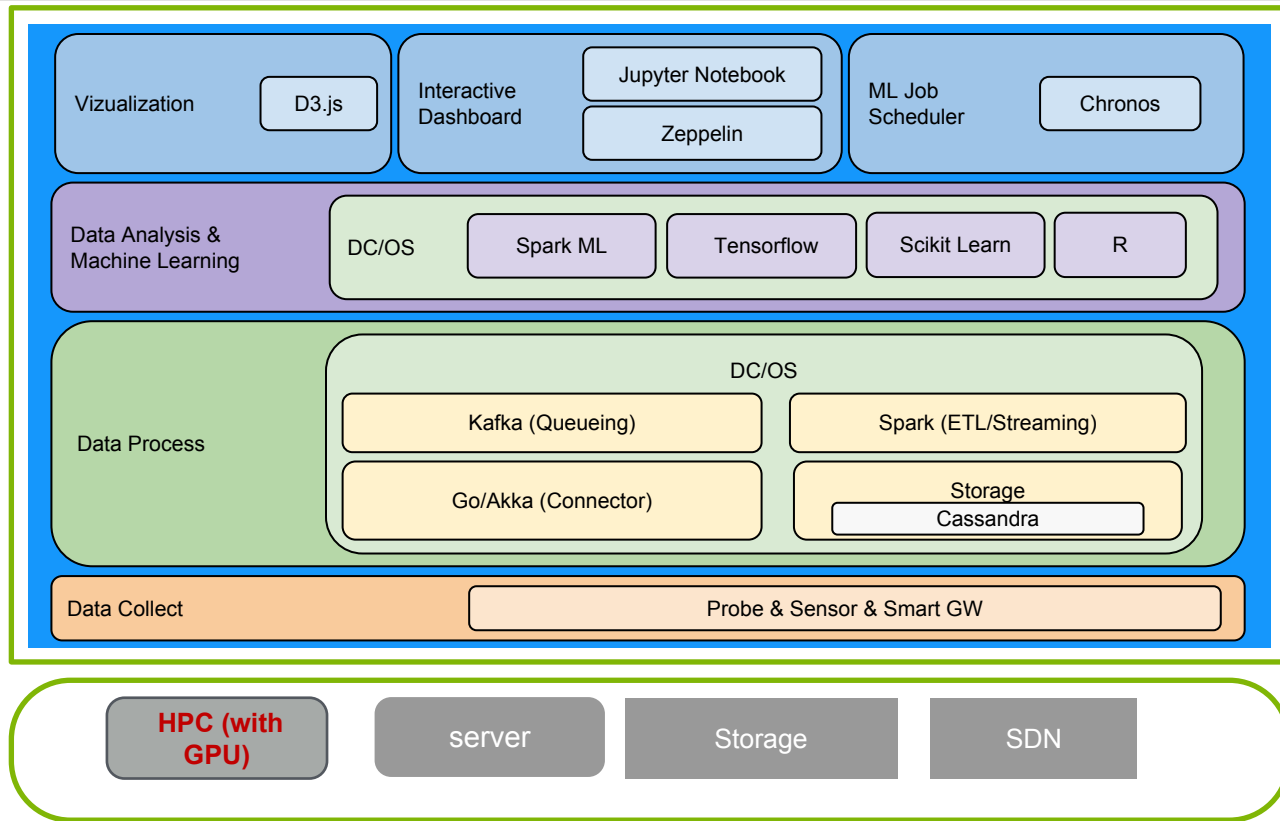
創新技術學院

一天搞懂深度學習

授課講師 陳經儀教授	
學員姓名	部門
授課日期 2017/04/20	

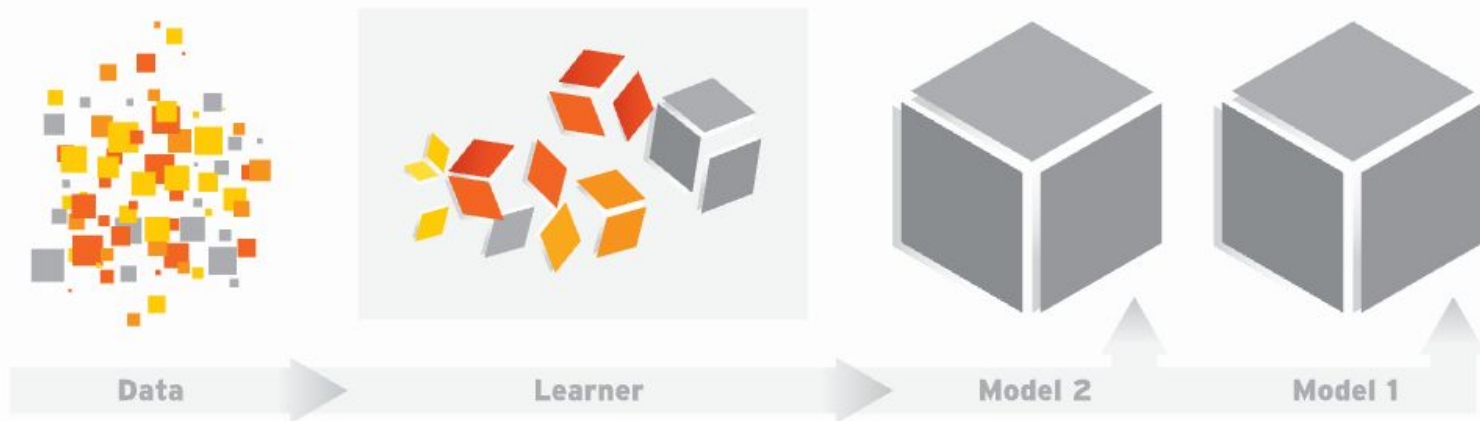
Or .. you have learn some great courses..

Machine Learning Data Flow

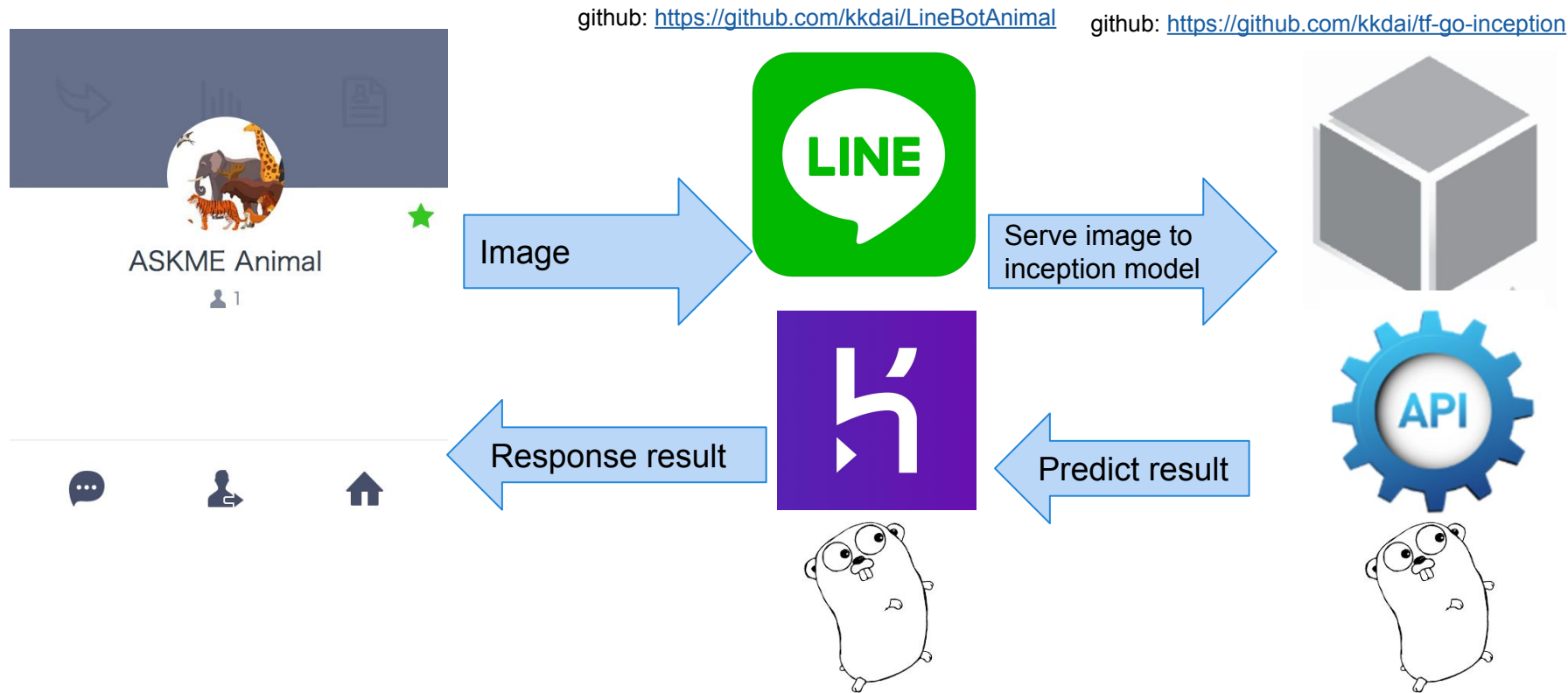


Serving Pre-build Models (1)

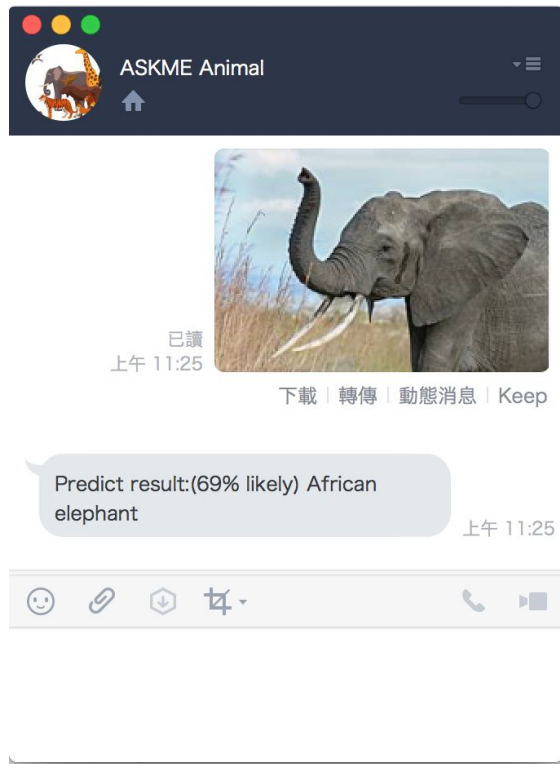
CONTINUOUS TRAINING PIPELINE



Serving Pre-build Models (2)



Let's ask about some animal



Even more...



tensorflow / models

Watch 1,056 Unstar 13,801 Fork 5,150

Code Issues 166 Pull requests 27 Boards Reports Projects 0 Wiki

Models built with TensorFlow

720 commits 1 branch 0 releases 163 contributors Apache-2.0

Branch: master New pull request Create new file Upload files Find file Clone or download

nealwu Minor fixes to ISSUE_TEMPLATE.md to match the tensorflow repository Latest commit 39c59d1 2 days ago

adversarial_text	Convert the paper titles into links in adversarial_text/README.md	4 days ago
autoencoder	Variational Autoencoder generate() function fixed (z fed in rather th...	29 days ago
cognitive_mapping_and_planning	Implementation for Cognitive Mapping and Planning paper.	4 days ago
compression	Fixed link	5 days ago
differential_privacy	Fixes for differential_privacy	13 days ago
domain_adaptation	Fix provide_batch_fn for semi-supervised case.	19 days ago
im2txt	Fix Links in Readme.md	a month ago
inception	Add back folder name improvements (no trailing slash)	15 days ago
learning_to_remember_rare_events	Convert tf.op_scope to tf.name_scope, plus a few other 1.0 upgrade ch...	a month ago
lm_1b	Fix README	8 months ago
namignizer	Merge pull request #924 from h4ck3rm1k3/master	a month ago
neural_gpu	Fix two typos	a month ago
neural_programmer	Merge pull request #924 from h4ck3rm1k3/master	a month ago
next_frame_prediction	Move each image to its own line	6 days ago

Lots of models here ..

Other tensorflow models (1)

A person on a beach flying a kite.

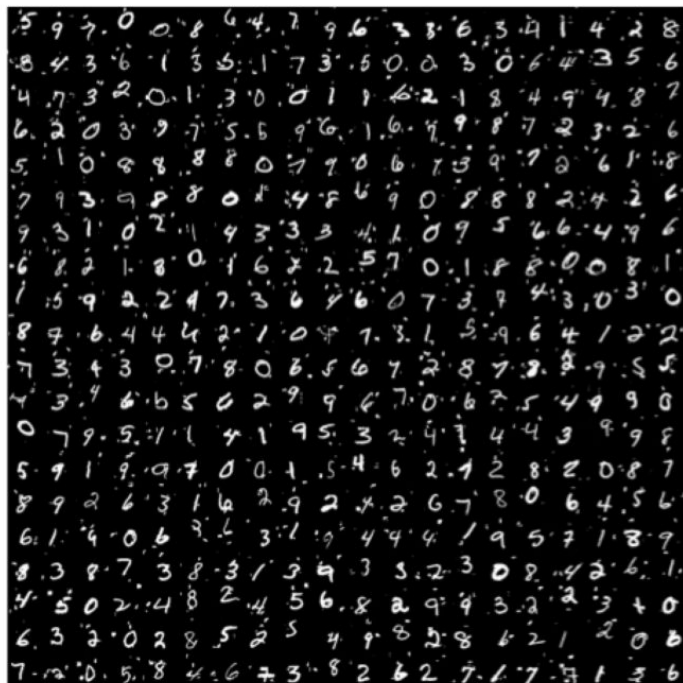


A black and white photo of a train on a train track.



<https://github.com/tensorflow/models/tree/master/im2txt>

Other tensorflow models (2)



Don't let your imaginations limits you



Refer: <http://www.butterlion.com.tw/>

歡迎訂閱 碼天狗

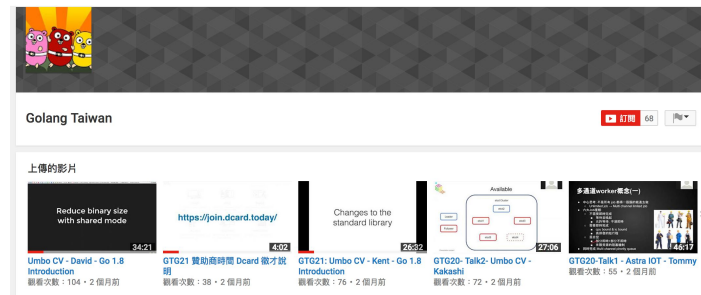
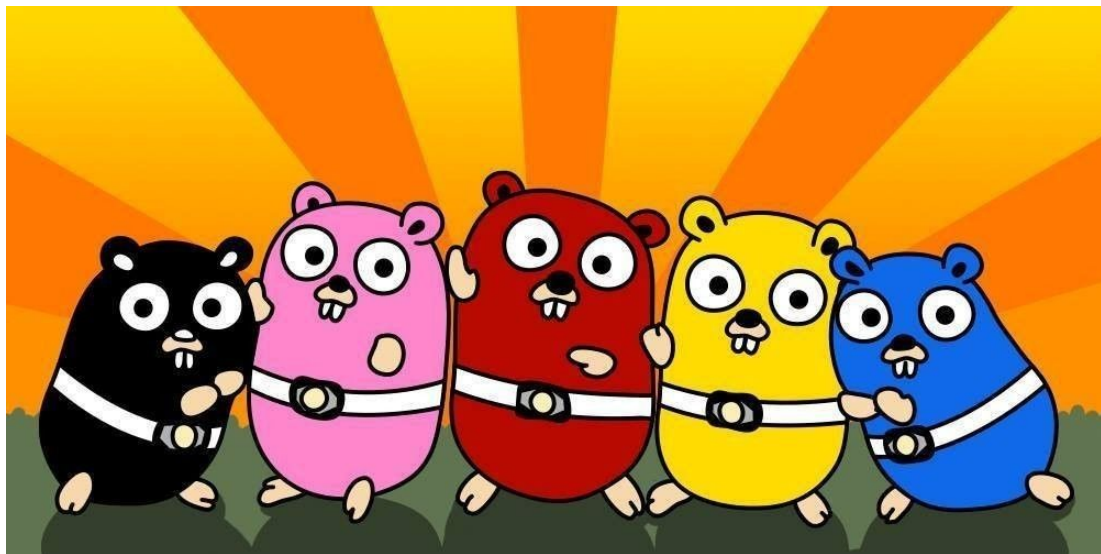
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CodeTengu Weekly（碼天狗週刊）是一份開發者導向的 **IT** 技術週刊，適合所有患有資訊焦慮症、氣血循環不順以及性受挫的軟體工程師們。

致力於解決開發者之間的資訊不對稱。

<http://weekly.codetengu.com/>

Golang.tw (Golang Taiwan User Group)

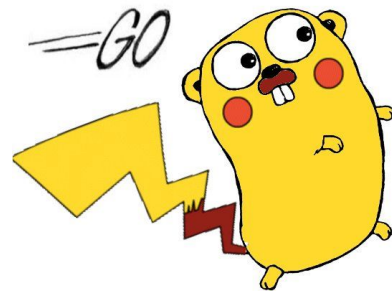
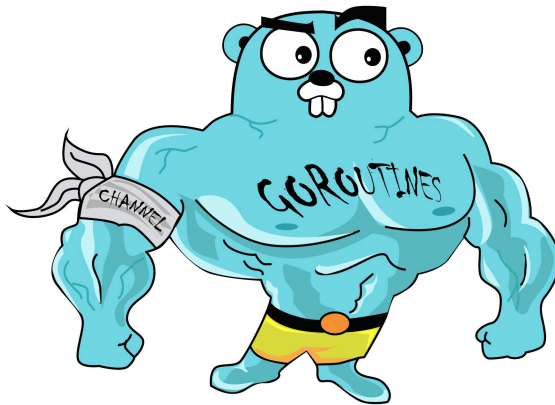


Go程式語言 (Golang Taiwan, Gopher Taipei)



iThome Gopher Day 2017/06/29

北科大集思中心 (Call for speaker)



Linker is hiring

Cloud Platform Engineer

- Kubernetes, DCOS
- Golang
- DevOps



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In Data Center / IoT / Mobile Networks

Live Demo

