

# 程式設計師的 自我修養

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KUDO@CSIE.IO

## ABOUT ME

- ▶ CCUCSIE 2002 - 2008, BS + MS (GAIS Lab)
- ▶ CNA 2002 - 2008
- ▶ Trend Micro, startups...
- ▶ TechCCU 2014 / 2015
- ▶ 打雜工，人生立志解 Bugs
- ▶ 今年是 CloudMosa 偽前端工程師



# TECHCCU 2014

flowstatd - 那五年

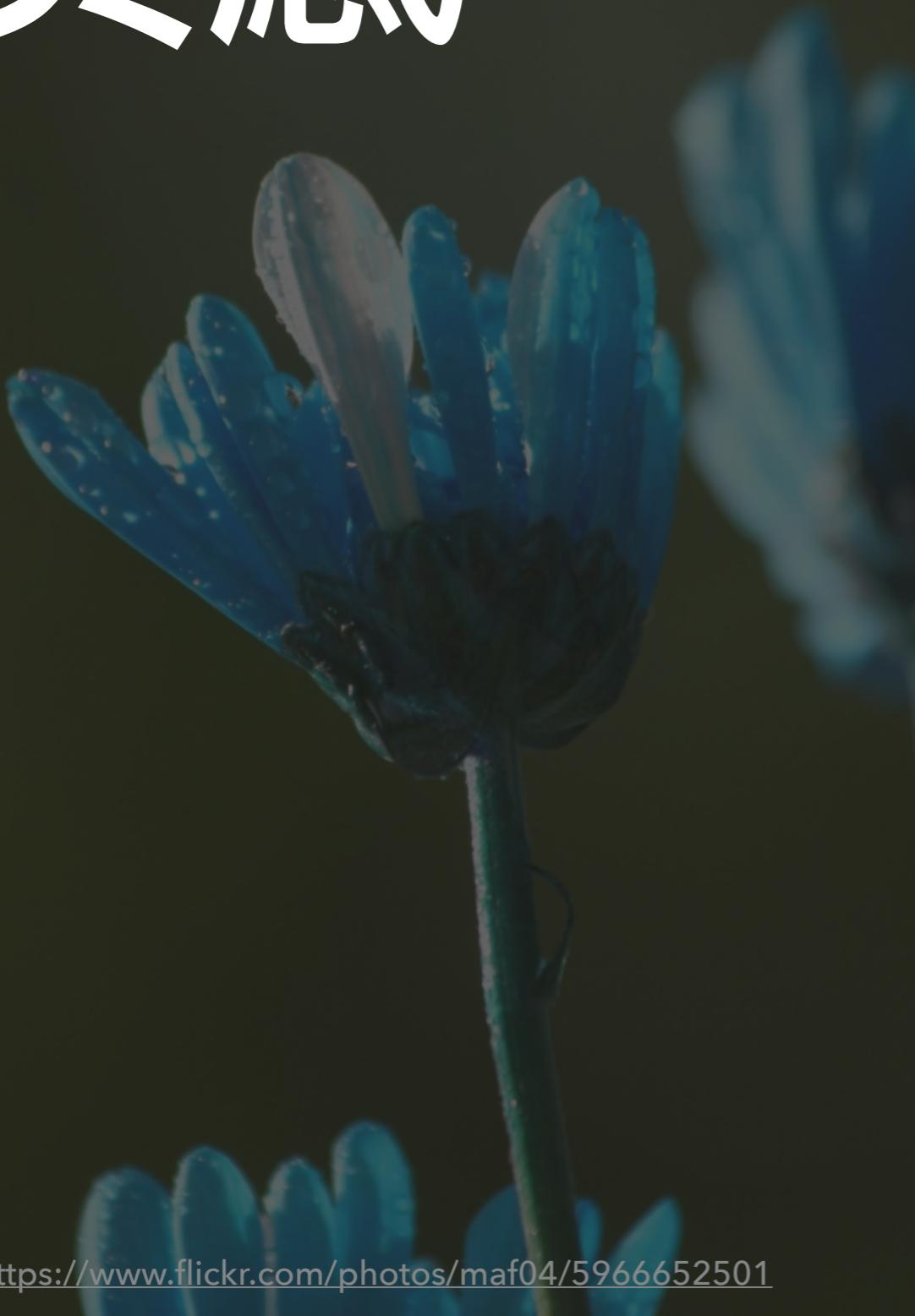
TECHCCU 2015

工程師的生涯規劃  
從 REACT NATIVE 開始

# Balance



# 美感



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# 追根究底



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# 快速學習



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美感

# Code level beauty

**BREAK COMMON  
CODE**

# DESIGN PATTERNS

- ▶ Factory
- ▶ Singleton
- ▶ Decorator
- ▶ Adapter
- ▶ Strategy
- ▶ Composite
- ▶ ...

# 大話設計模式

程杰

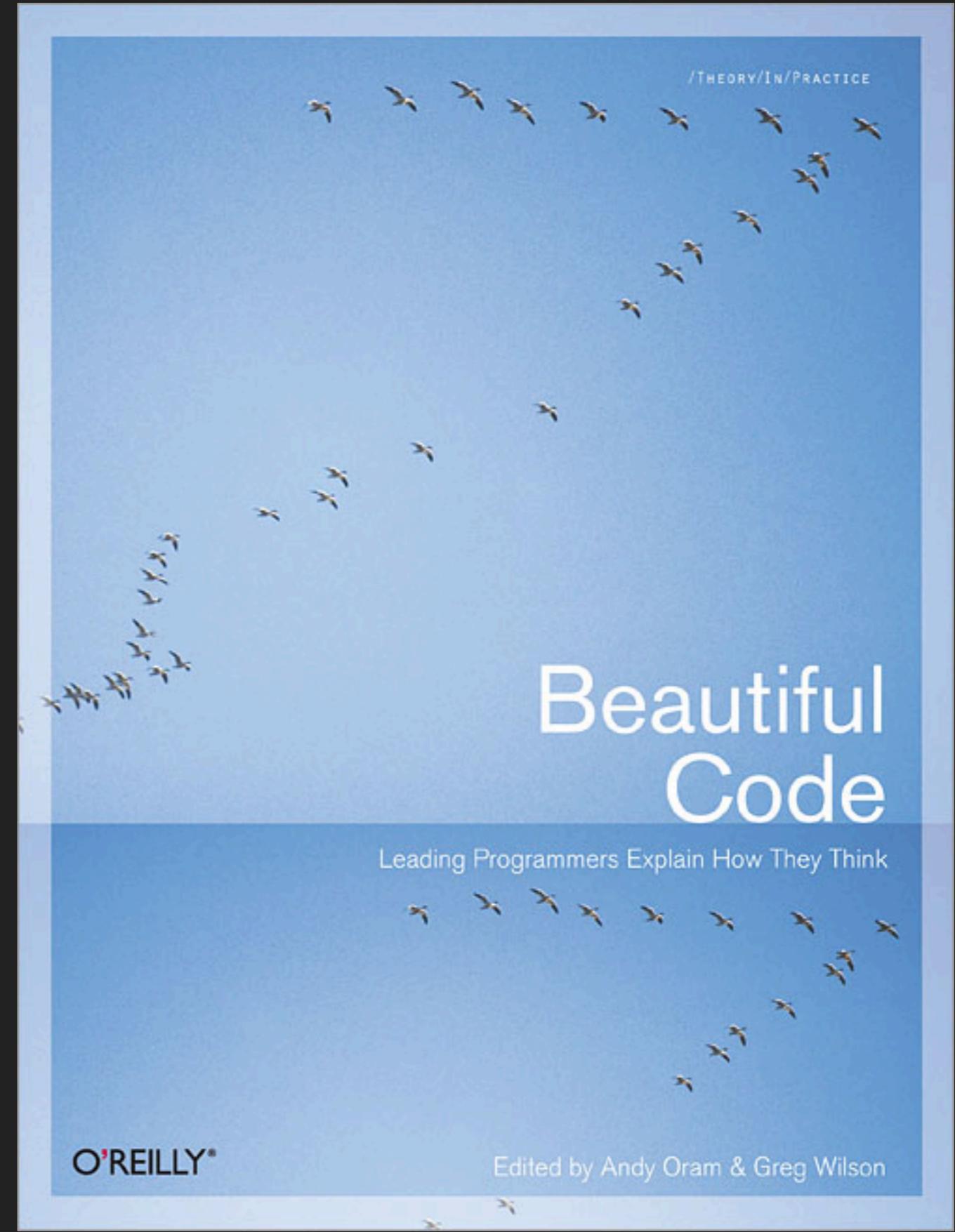


# SOLID

- ▶ SRP
  - ▶ Single responsibility principle
- ▶ OCP
  - ▶ Open/close Principle
- ▶ LSP
  - ▶ Liskov substitution principle
- ▶ ISP
  - ▶ Interface segregation principle
- ▶ DIP
  - ▶ Dependency inversion principle

# Beautiful Code

# 美麗程式



# FUNCTIONAL PROGRAMMING

# TEST

- ▶ Unit test
- ▶ Functional test
- ▶ Integration test

# UNIT TEST

- ▶ 寫出好測試的程式
- ▶ Dependency Injection (DI)
- ▶ Mock object
- ▶ Case: USB pendrive test program



# Architecture level beauty

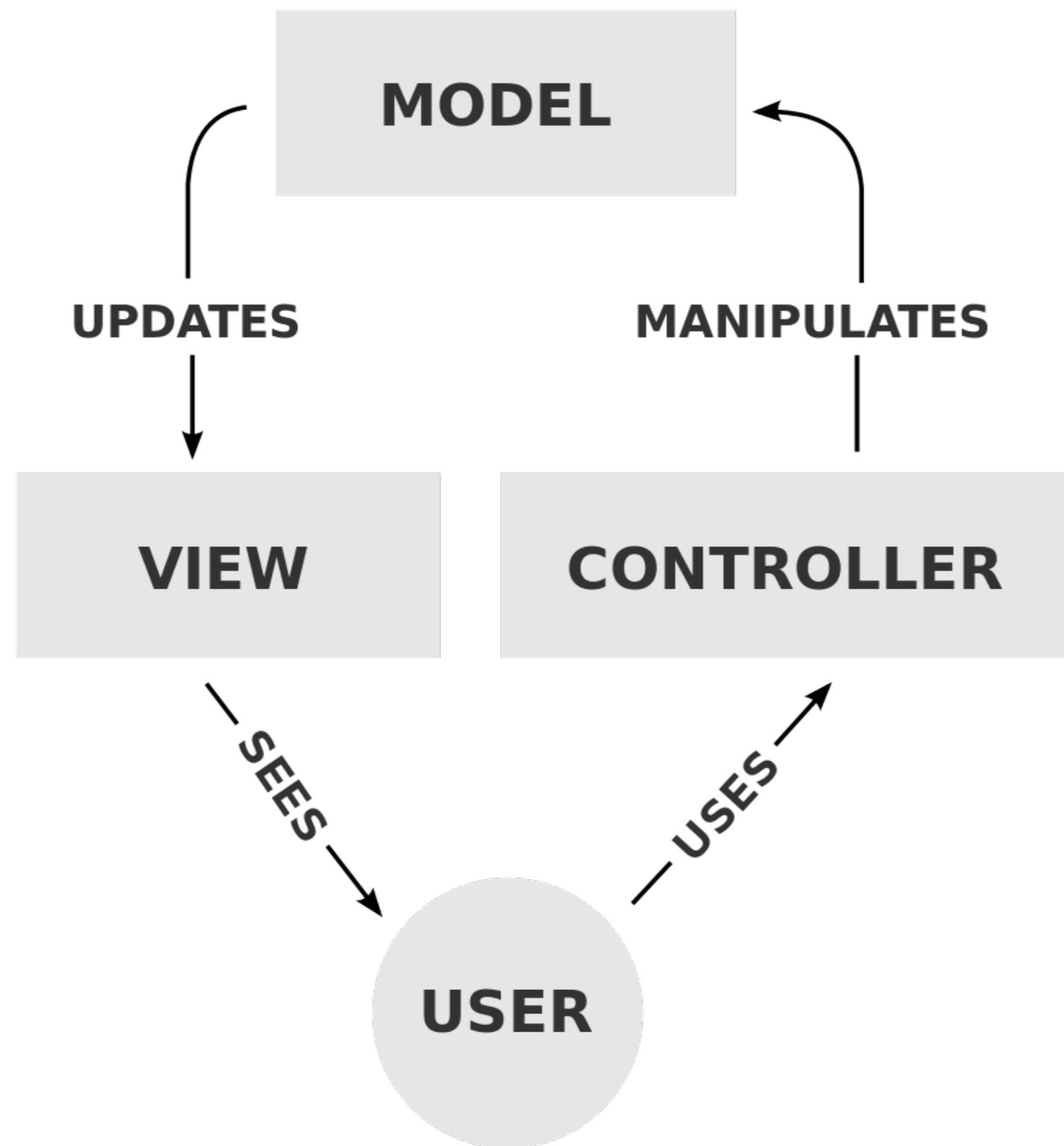
# All in one controller



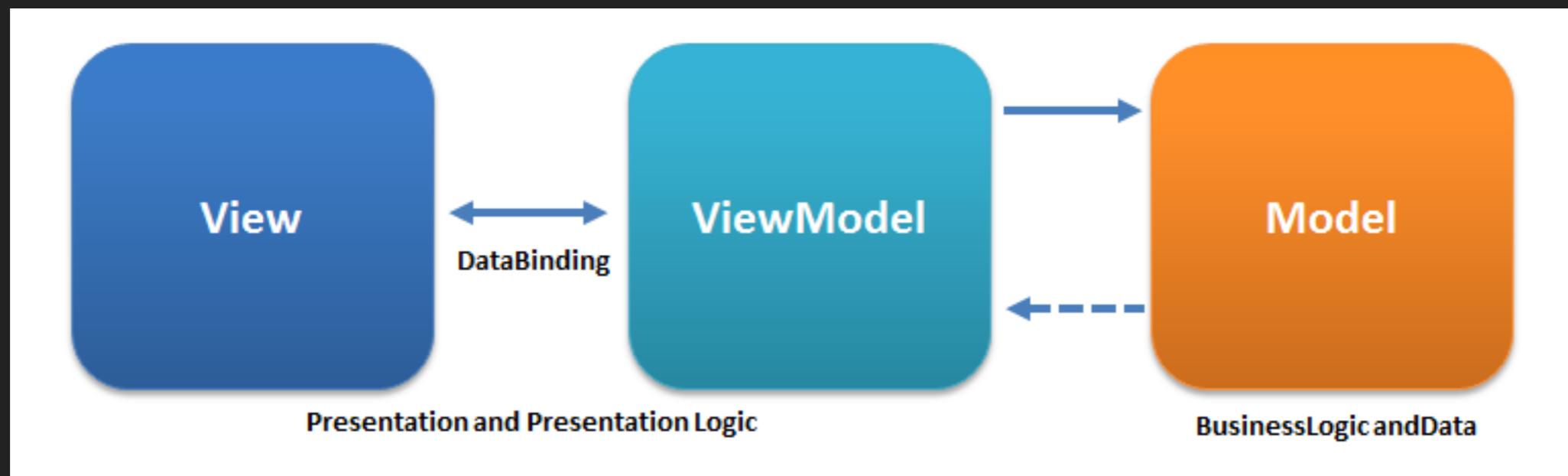
ALL PROBLEMS IN COMPUTER  
SCIENCE CAN BE SOLVED BY  
ANOTHER LEVEL OF INDIRECTION.

David John Wheeler

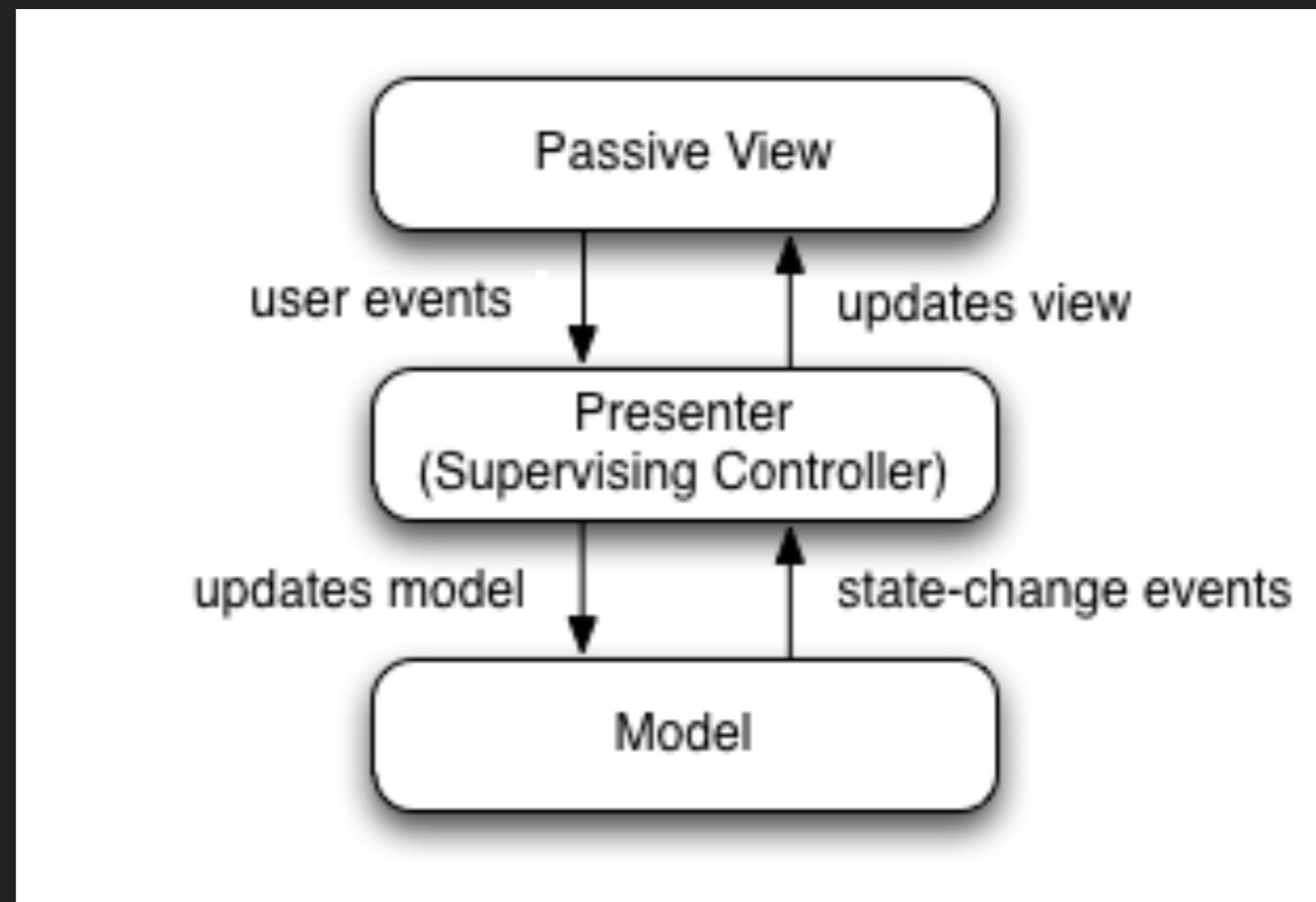
MVC  
(MODEL VIEW  
CONTROLLER)



# MVVM (MODEL VIEW VIEW-MODEL)

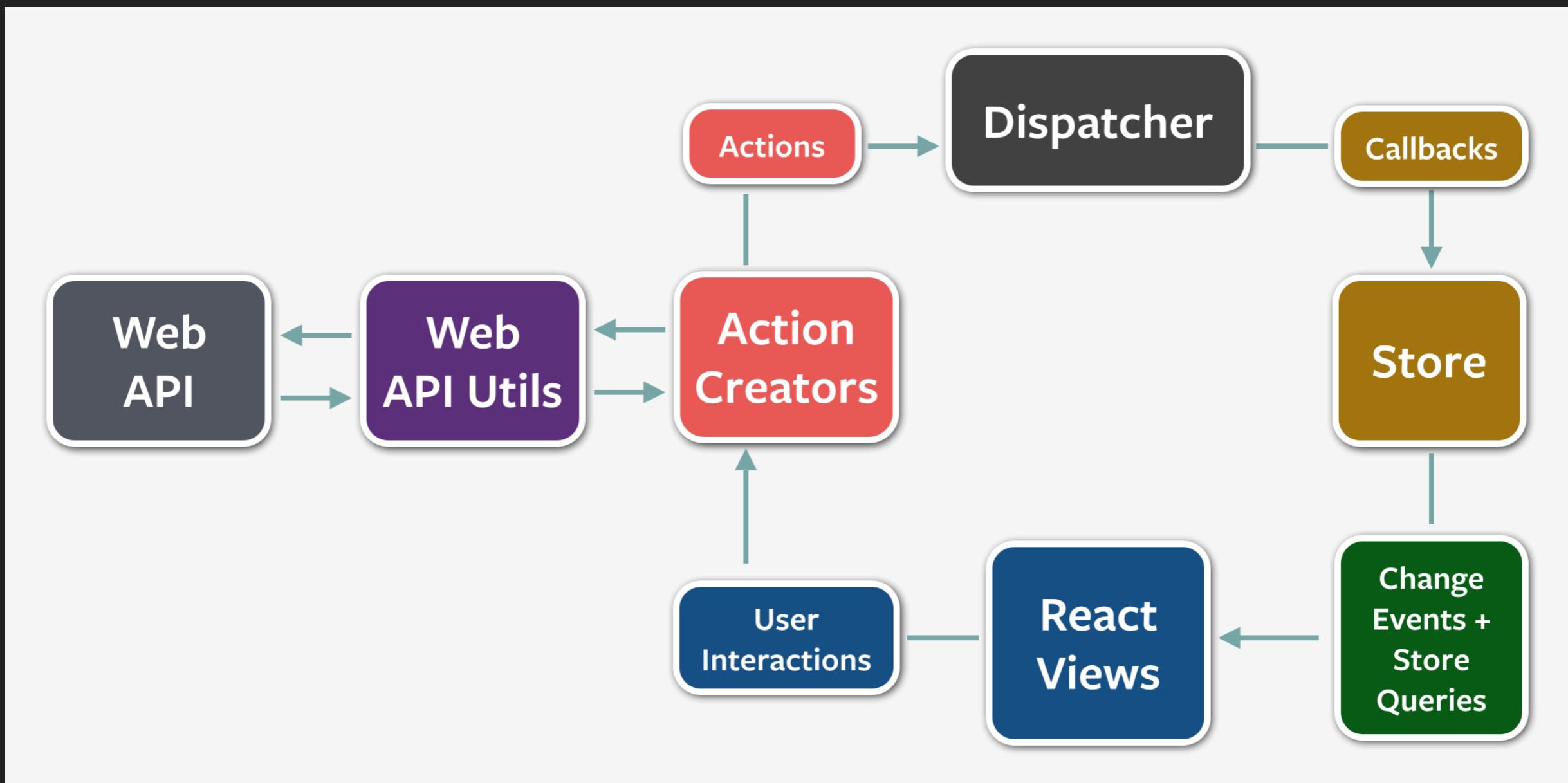


# MVP (MODEL VIEW PRESENTER)

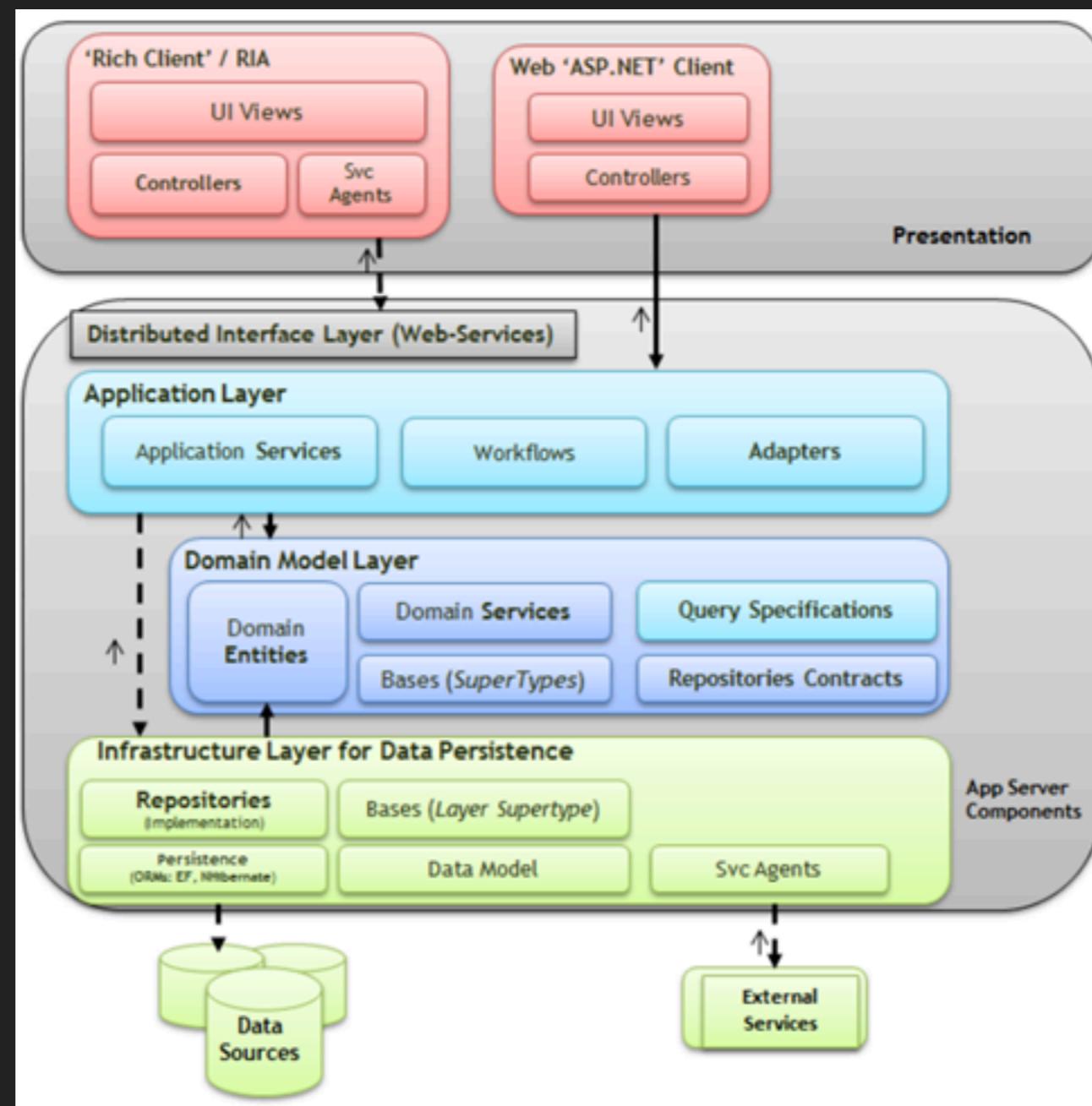


MVW  
WHATEVER

## FLUX



## MODEL 的分層 - DDD (DOMAIN-DRIVEN DESIGN)



# THE EVOLUTION OF A SOFTWARE ENGINEER

- ▶ <https://medium.com/@webseanhickey/the-evolution-of-a-software-engineer-db854689243>
- ▶ 獨孤求敗
- ▶ [劍器資料](#)



# 追根究底

# 程式設計師的自我 修養—連結、載入、 程式庫

俞甲子、石凡、潘愛民

GOTOP



## 程式設計師的自我修養 —連結. 載入. 程式庫

俞甲子/石凡/潘愛民 著

一碁筆  
[www.gotop.com.tw](http://www.gotop.com.tw)

跟 BUG 正面對決

## 是否曾經遇過這樣的狀況 !?

- ▶ 把一行拿掉程式就正常了
- ▶ 先做 A 再做 B 就不會 crash 了
- ▶ 降低 thread 的數量就可以了
- ▶ 不要跑 Daemon mode 就可以了

## DEBUG CASE - I

- ▶ 程式不正常，好像沒有在跑
- ▶ 看 Debug log
  - ▶ 沒 Debug log
- ▶ Process Monitor by SysInternals
- ▶ IE Protected Mode

## DEBUG CASE - II

- ▶ 使用手機瀏覽器開了多個分頁之後，手指滑動會很慢、耗電量高、手機變燙
- ▶ Profiling
- ▶ CPU / RAM / Power Consumption
- ▶ Gesture Recognizer
- ▶ Reverse Engineering

# PROFILING AS SINGLE TRUTH

## 充滿好奇心

- ▶ 好奇別人的 Bug 怎麼解的
- ▶ 好奇人家的技術是怎麼做到的
- ▶ 好奇為什麼人家的程式就是比較快、比較省記憶體



快速有深度  
的學習

# 愛上看CODE

- ▶ Thinker 大大的文章
  - ▶ 讀 code 和讀文章應該差不多
    - ▶ [http://www.codemud.net/~thinker/GinGin\\_CGI.py/show\\_id\\_doc/498](http://www.codemud.net/~thinker/GinGin_CGI.py/show_id_doc/498)
  - ▶ 閱讀程式碼的心理層面
    - ▶ [http://www.codemud.net/~thinker/GinGin\\_CGI.py/show\\_id\\_doc/497](http://www.codemud.net/~thinker/GinGin_CGI.py/show_id_doc/497)

## 擁抱新技術 !?

- ▶ ROR 開發速度很快
- ▶ NodeJS 執行速度很快
- ▶ Swift 是一個很棒的程式語言
- ▶ AngularJS, ReactJS
- ▶ NoSQL MongoDB
- ▶ 不要人云亦云
- ▶ 要知道自己要的是什麼
- ▶ 深度研究

## 依程式語言特性因地制宜

- ▶ ElasticSearch reindex
- ▶ 用 NodeJS 超痛苦
  - ▶ 先天 asynchronous 特性
- ▶ 改用 Python 好多了

**REACT IS NOT  
ONLY VDOM**

## 跟上 FRONTEND 技術變化

- ▶ JavaScript
- ▶ CSS
- ▶ jQuery
- ▶ CSS
- ▶ BackboneJS
- ▶ SASS
- ▶ AngularJS
- ▶ CSS Modules
- ▶ ReactJS
- ▶ VueJS
- ▶ AngularJS2

## \* WEEKLY

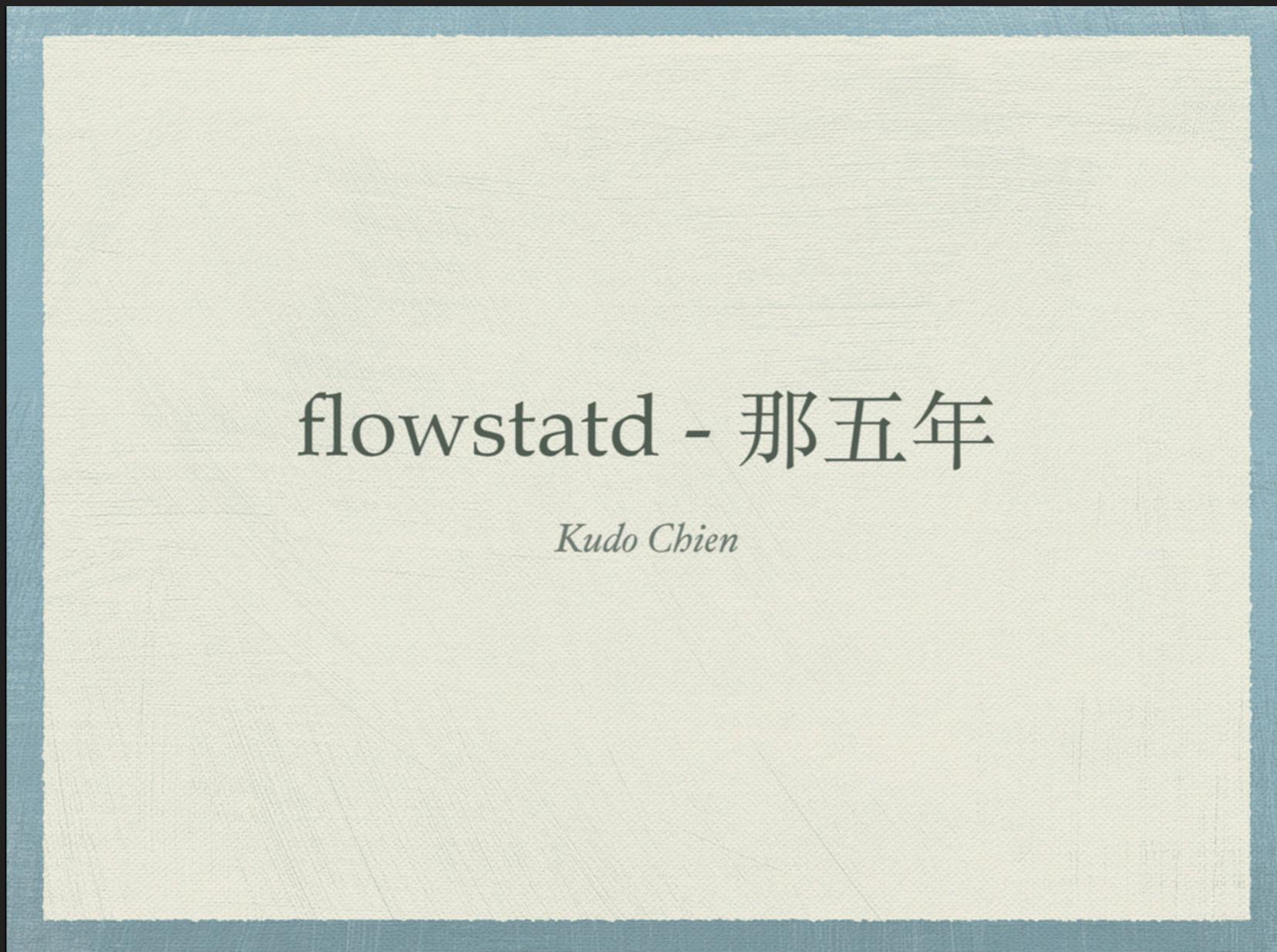
- ▶ CodeTengu Weekly
- ▶ Android Weekly
- ▶ iOSGoodies
- ▶ Python Weekly
- ▶ CSS Weekly
- ▶ egghead.io
- ▶ Livecoding.tv

# CONTRIBUTION

## To open source projects

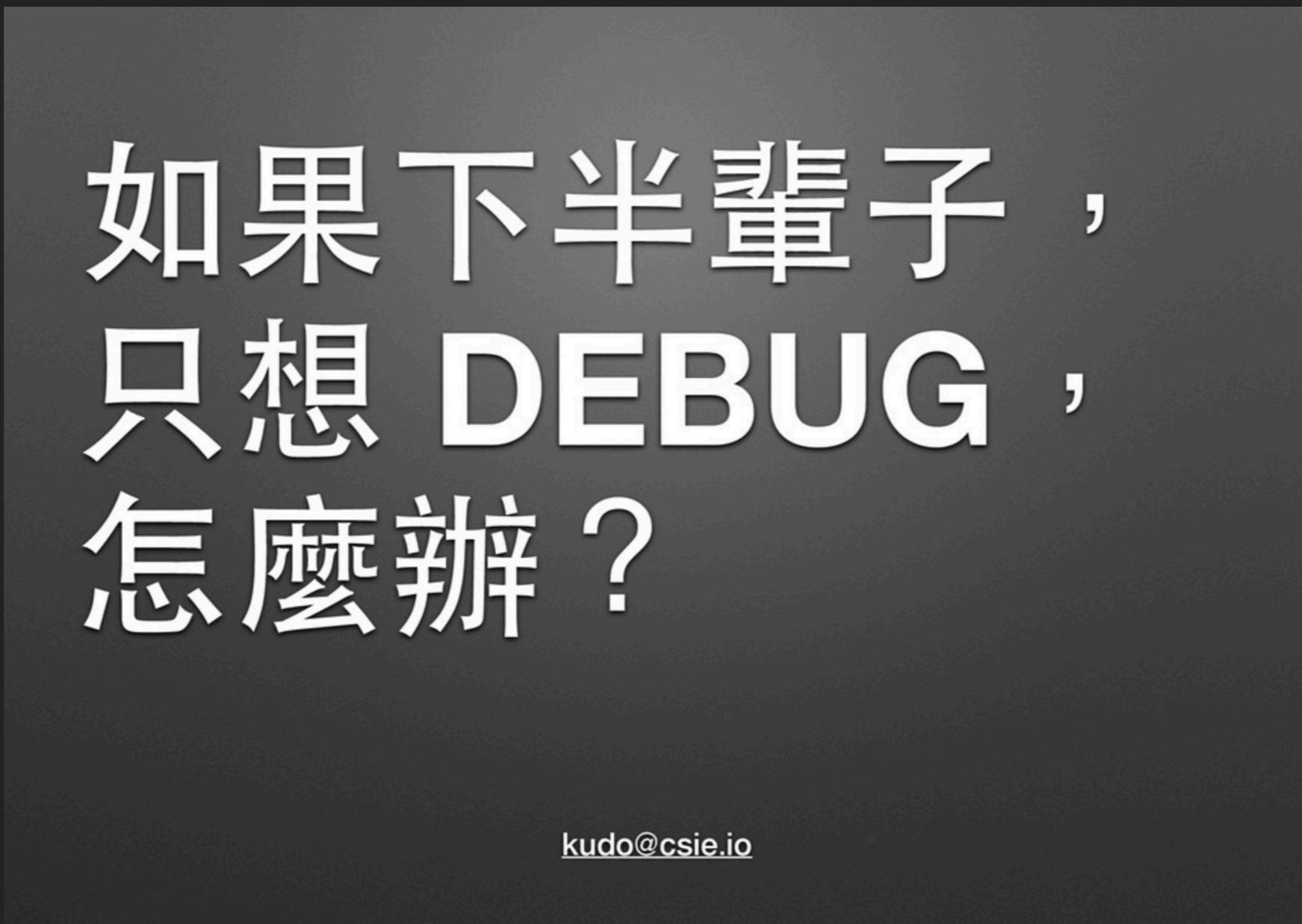
## FLOWSTATD

- ▶ <https://speakerdeck.com/kudochien/flowstatd>



# 如果下半輩子只想 DEBUG 怎麼辦

► <https://speakerdeck.com/kudochien/ru-guo-xia-ban-bei-zi-zhi-xiang-debug-zen-mo-ban>



快速有深度的學習TEXT

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# 工程師的生涯規劃，從 REACT NATIVE 開始

► <https://speakerdeck.com/kudochien/gong-cheng-shi-de-sheng-ya-gui-hua-cong-react-native-kai-shi>

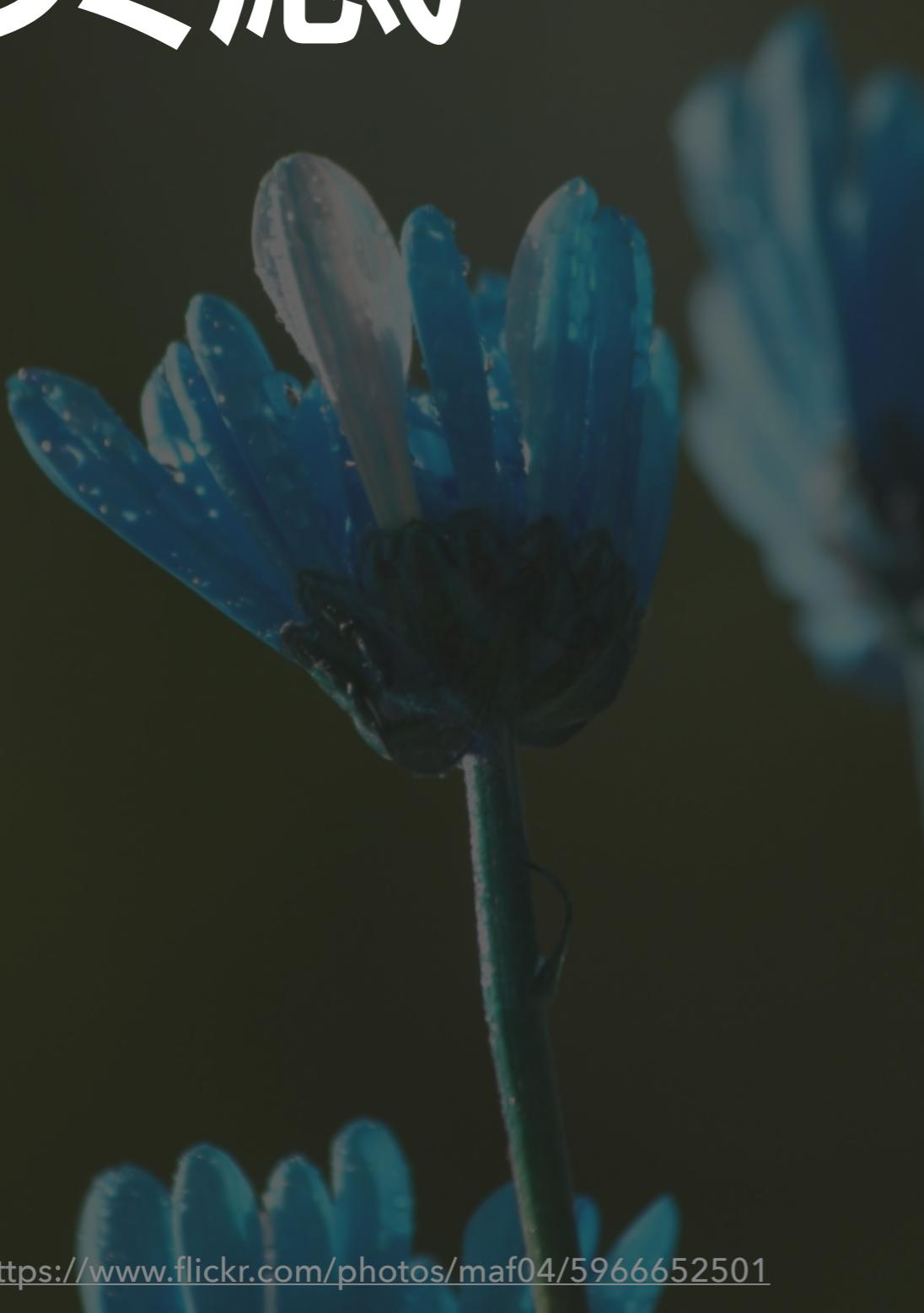


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@kudochien  
on twitter

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# REFERENCES

- ▶ [iOS Architecture Patterns](#)
  - ▶ Demystifying MVC, MVP, MVVM and VIPER
- ▶ Flux
  - ▶ <https://facebook.github.io/flux/> 裡面這段影片值得一看
- ▶ Contribution
  - ▶ Check React Native - <https://github.com/facebook/react-native>