



智慧系統與晶片產業發展策略會議

《國際接軌與促進投資》

引言人

鈺創科技 盧超群董事長



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之初創投 林之晨合夥人



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Google / Chris Liao



國際接軌與促進投資

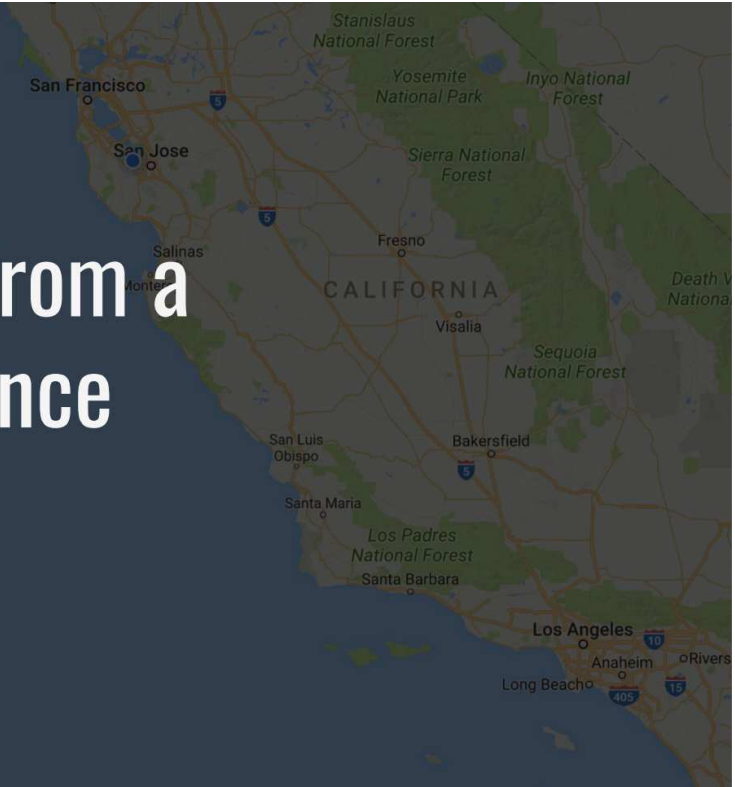
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July 10-12, 2017

Chris Liao

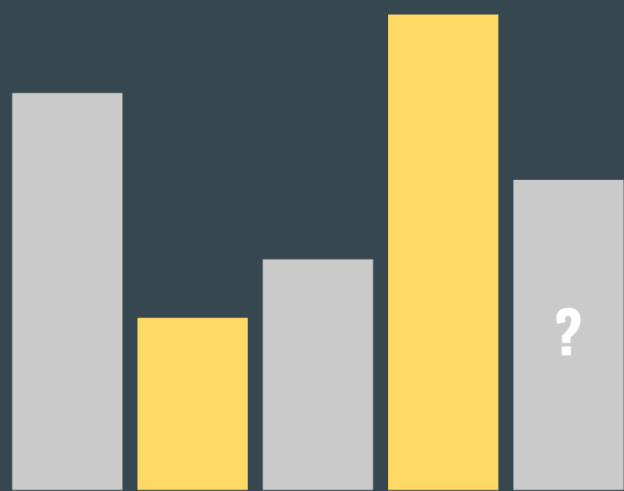
A Perspective from a Decade's Experience Abroad



The Diaspora

An increasing number of tech graduates leave the country and have no plan to return.

NTUEE 108: Roughly a quarter of the class is abroad today. Majority in the software industry.



Why?

The (job) market

A booming economy and fierce talent competition have driven up wages. Opportunities abound.

The (tech) giants

Silicon Valley has had its allure of being where “things” happen. A perceived aura adds to its appeal.

13

But...

Entrepreneurship is easier when you know the market, the people, and the problems well. Being native has its advantages.

Away from home, where family and friends are.

14



An environment friendly to domestic startups and foreign giants can help bring talent back (people and/or knowledge).

The market itself has to solve the compensation problem at the end.

Coders for Life

It can be taught. It can be learned. And it's not just for geeks.

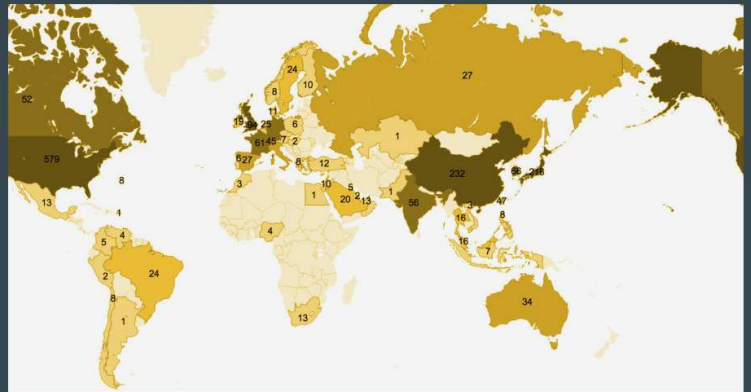
The entry barrier is so low (both Google and Apple now run programs targeting kids), the spirit of "hacking away" becomes worth promoting at all levels of education.



One Step Beyond

The tech industry is inherently open. We are a diverse, multicultural, and dynamic group.

Managing in this environment has its challenges and rewards, but the right culture can attract talent from far and wide.



Chris Liao

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Microsoft / Erica Lan

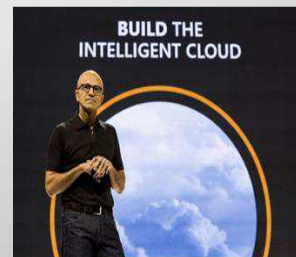
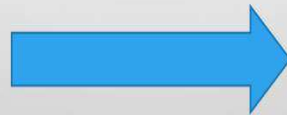
CLOUD, ENGINEERING &
INTELLIGENCE

LET'S CATCH THE WAVE

ERICA LAN, 藍遂青, PARTNER AT MICROSOFT

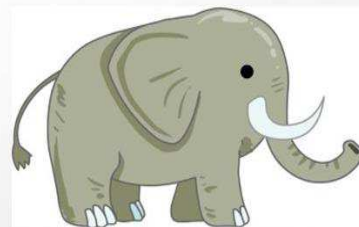
CLOUD

- CLOUD SERVICE
- CLOUD PLATFORM
- CLOUD INFRASTRUCTURE
- ELASTICITY
- MULTI-TENANCY
- CLOUD SECURITY
- DATA
- ANALYTICS
- MACHINE LEARNING

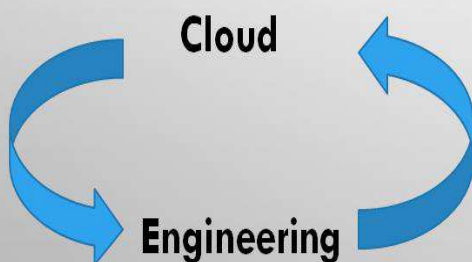


CLOUD ENGINEERING

- CLOUD REDEFINE ENGINEERING
 - GITHUB
 - INFRASTRUCTURE IS CODE
 - DEVOPS
- IT IS ALL ABOUT FEEDBACK LOOP
 - SPEED
 - ENGINEERING INTELLIGENCE



- ELEPHANT IN THE ROOM
 - TALENTS
 - SECURITY



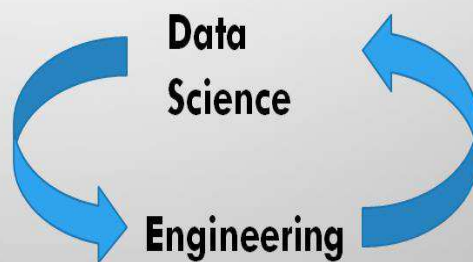
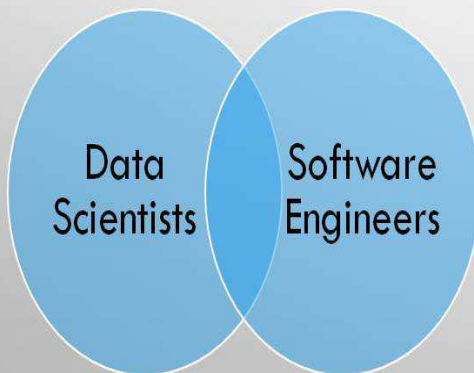
DATA SCIENTIST AND SOFTWARE ENGINEER

- CAN A SOFTWARE ENGINEER BE A DATA SCIENTIST?
- CAN A DATA SCIENTISTS BE A SOFTWARE ENGINEER?

How to build a team with Data Scientists and Software Engineers together?

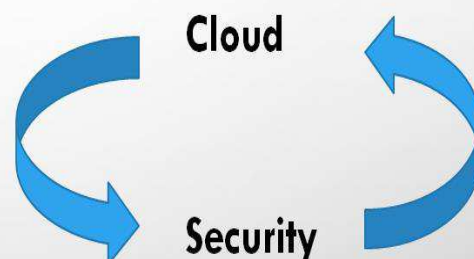
- One group serves all
- Or embedded in each group

- It is all about feedback loop

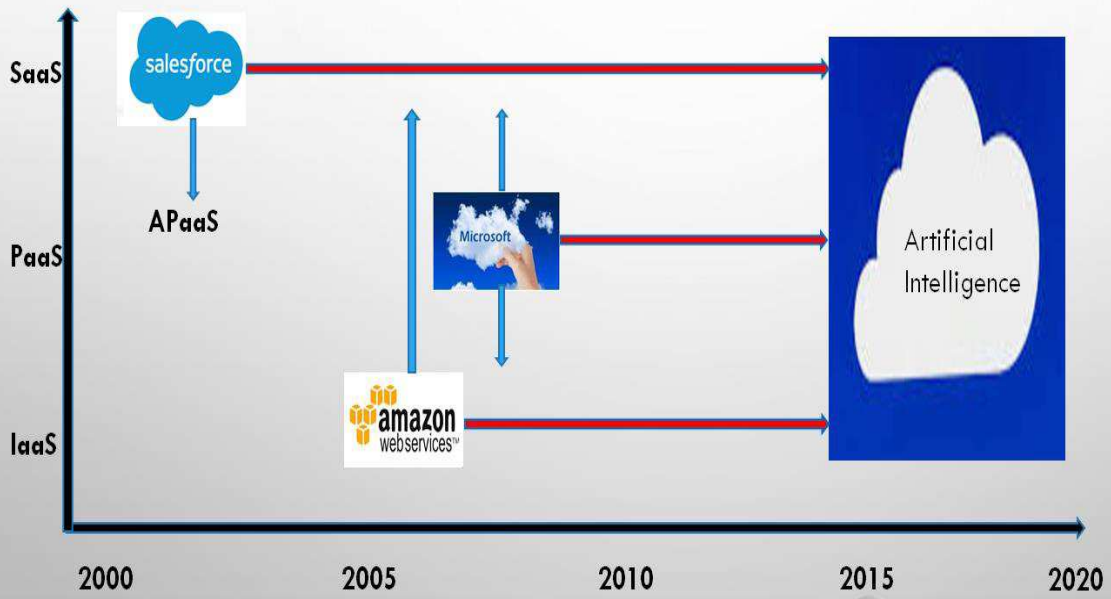


CLOUD SECURITY -- SECURITY AT SCALE

- SOFTWARE DEFINED SECURITY
 - CODIFIED SECURITY CONTROLS
 - POLICY DRIVEN SECURITY
 - NEAR REAL TIME DETECTION (= PREVENTION?)
 - QUICK MITIGATION BY REPLACEMENT
 - FORENSIC ANALYSIS



AI IN CLOUD





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Twitter / Alex Wu

Working in the Valley

ORACLE®

Eng. Manager
Server Tech
Oracle DB, J2EE



Data Architect
Data Pipeline
Hadoop Infra

twitter

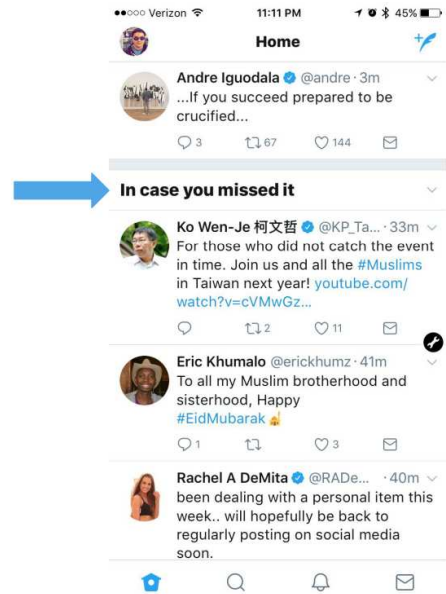
**Senior Eng.
Manager**
Product Safety
 @alexwu

AI & Big Data @ Twitter

Twitter is Live, and the the best place to see what's happening and why it matters

Products that use Machine Learning

- Ranked Home Timeline
- Recommendations
- Ads Prediction
- Spam Detection
- Video Compression
- ...



31

Big Data drives company success

- Big Data powers every metric-driven product decision
 - Experiments, A/B tests
- Big Data provides business intelligence that steers company direction
 - Define company goals
 - Invest limited resources to achieve them
- Big Data makes large-scale Machine Learning possible

32

Invest in Big Data

- Invest and pick the right infrastructure
 - At Twitter, we use Hadoop, Scalding, Heron (realtime stream processing engine)
- Big Data should be an integral part of the day-to-day work
 - Regular trainings
 - Company goal: X% of employees can write analytics jobs
 - Define success with metrics and key results
 - Eg. move this metric from X% to Y%

33

AI makes your product better

- Lower the entry barrier
 - Trainings, online courses
 - Encourage engineers to be ML practitioners
- Integrate Machine Learning into your products
 - Upfront investment in ML platform, service integration, experimentation framework etc.
 - But it will pay off fast
- AI drives better performance
 - The Ranked Timeline has driven increases in both audience and engagement on Twitter

34



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Zillow / Robert Chen



MACHINE LEARNING AT REAL ESTATE AND ML/AI TALENT

Robert Chen, Director of Machine Learning Engineering

Zillow Group

- Zillow Group’s mission: To build the world’s largest, most trusted and vibrant home-related marketplace
- Zillow Group is the leader in online real estate industry in US and captured nearly two-third of the total market share

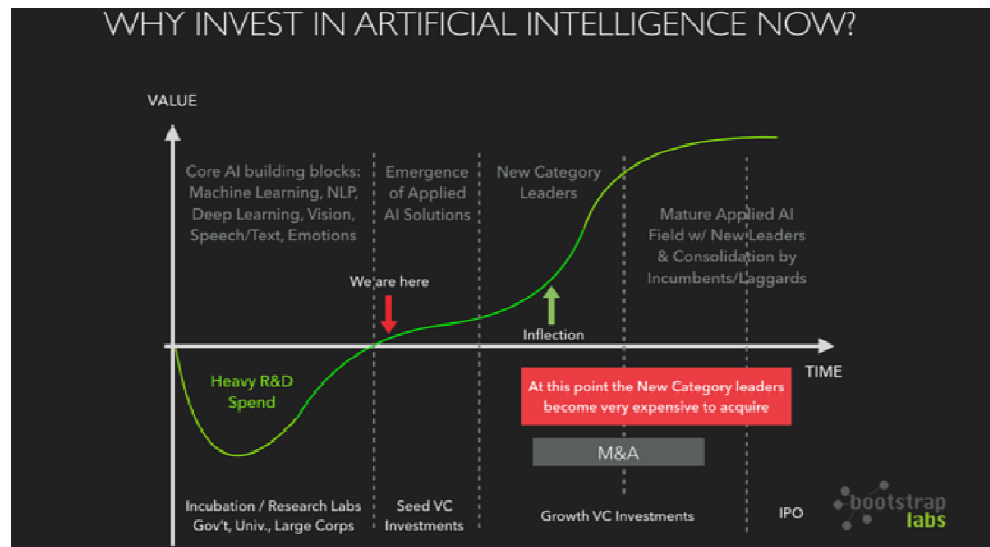


Machine Learning at Zillow Group

Home Valuation	Personalization
<ul style="list-style-type: none"> • Zestimate • Home value forecast • Zillow home value index • Rent estimate • Zillow rent index • Pricing tool • Best time to list 	<ul style="list-style-type: none"> • Home recommendation • New regions to explore • Lender recommendation • Personalized search
	Computer Vision
	<ul style="list-style-type: none"> • Videos • Photos
User Profiles	Marketing & Sales
<ul style="list-style-type: none"> • Persona predictions • Demographic prediction • User stage prediction 	<ul style="list-style-type: none"> • Ad optimization • Recommendation Ad • Sales optimization

ML/AI Culture

- ML/AI requires heavy investment
- ML/AI is not intuitive in the beginning and it's hard to explain in many cases
- ML/AI will pay off and it will accelerate afterward



Talent on Software/AI

- Taiwan has many talent right now in USA in Software/AI industry
- We (Taiwan) have many talent on software engineering and infrastructure
- We have many science and engineering talent on ML/AI
- We don't have that many business talent on ML/AI – product management, business model, and marketing
 - Business model is very important in the era. There are a lot of innovation but very few of them succeed in scale.
- We don't have that many senior management talent on ML/AI – vision, culture, and strategy
 - Vision, culture and strategy are very important for a company's success
- Taiwan need to attract international talent!!
- Traditional giants are also fighting for those talents!!
 - Ford, GE, JP Morgan, Nike, and you name it