

App + AI = ?

吳尚鴻 Shan-Hung Wu

CS, NTHU



Shan-Hung Wu 吳尚鴻

- ***Machine Learning***

- “Learning User Perceived Clusters with Feature-Level Supervision,” in NIPS’16
- “Non-Linear Cross-Domain Collaborative Filtering via Hyper-Structure Transfer,” in ICML’15
- “Learning the Consistent Behavior of Common Users for Target Node Prediction across Social Networks,” in ICML’15

- ***Database Systems***

- “T-Part: Partitioning of Transactions for Forward-Pushing in Deterministic Database Systems,” in SIGMOD’16

- ***App/Web Intelligence***

- “Detecting In-Situ Identity Fraud on Social Network Services: A Case Study on Facebook,” in IEEE Systems Journal, 2017
- “Rendezvous for Heterogeneous Spectrum-Agile Devices,” in INFOCOM’14

Real Apps on the Market

Forest



DoubleViz



ElaSQL



Flora



VanillaDB

感想？

Visibility
is everything!

Meet AI

Creative Ads

Sell It To Me!



GUINNESS GUIDE TO OYSTERS



CAPE CODS : An oyster of superb flavor. Its chief enemy is the starfish, which wraps its arms about the oyster and forces the valves open with its feet. The battle lasts for hours, until the starfish is rewarded with a good meal, but alas, no Guinness.



NEW ORLEANS : This was Jean Lafite's oyster, which is now used in Oysters Rockefeller. Valuable pearls are never found in *ostrea virginica*, the family to which East Coast oysters belong.



GREENPORT : These oysters have a salty flavor all their own. They were a smash hit with the whalers who shipped out of Greenport in olden days. Oysters contain iron, copper, iodine, calcium, magnesium, phosphorus, Vitamin A, thiamine, riboflavin and niacin. The Emperor Tiberius practically lived on oysters.



OYSTER BAY : Oyster Bays are mild and heavy-shelled. It is said that oysters yawn at night. Monkeys know this and arm themselves with small stones. They watch for an oyster to yawn and then pop the stone in between the shells. "Thus the oyster is exposed to the greed of the monkeys."



TANGIER : This is one of the sweetest and most succulent oysters. It comes from the Eastern Shore of Maryland. Pocahontas fed Tangiers to Captain John Smith, with famous results. Oysters go down best with Guinness, which has long been regarded as the perfect complement for all sea-food.



BLUEPOINTS : These delicious little oysters from Great South Bay somewhat resemble the famous English 'natives' of which Disraeli wrote: "I dined or rather supped at the Carlton . . . of oysters, Guinness and broiled bones, and got to bed at half past twelve. Thus ended the most remarkable day hitherto of my life."



LYNNHAVEN : These gigantic oysters were Diamond Jim Brady's favorites. More fishermen are employed catching oysters than any other sea food. The Damariscotta mound in Maine contains three million bushels of oyster shells, piled there by pre-historic Bradys.

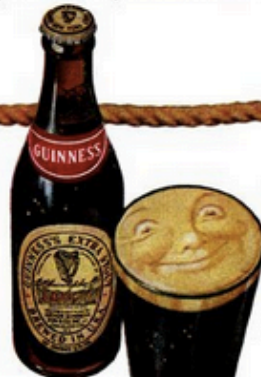


DELAWARE BAY : This was William Penn's favorite oyster. Only 15% of oysters are eaten on the half-shell. The rest find their way into stews, or end their days in a blaze of glory as "Angels on Horseback." One oyster was distinctly heard to whistle.



CHINCOTEAGUES : Many epicures regard Chincoteagues as the supreme aristocrats of the oyster tribe, but some West Coast gourmets prefer the Olympia oyster, which

ALL OYSTERS taste their best when washed down with drafts of Guinness—what Professor Saintsbury in "Notes On A Cellar-Book" called "that noble liquor—the comeliest of black malts." Most of the malt used in brewing Guinness comes from the fertile farms of Southern Ireland, and the yeast is descended from the yeast



這輩子一定要 吃的十種生蠔！

對，就是業配文產生器

Context Understanding in NLP

你覺得最好吃的下酒菜是什麼？

剛出鍋的**花生**軟而韌，等到涼了，香脆的口感才能顯出來，這時可以撒上一撮鹽或糖調味，也有人愛放一點孜然。如果倒上陳醋，就成了老醋花生，酸香開胃，是下酒的好菜。

土豆花生網App：海量電影、戲劇隨你看哦
現在註冊還可抽iPhone，快點擊並下載開始你的追劇旅程。

<Bad Native Ads>

土豆也是百搭的食材，可炒可蒸可烤可煮，無論吃飯還是**喝酒**，總有它在裡面湊熱鬧。在土豆絲頂上撒上香蔥，想吃點辣的放上切碎的干辣椒粒，然後燒一勺滾燙的花椒油澆上去，刺啦一聲，熱油激出來的香味就填滿了每個縫。

你覺得最好吃的下酒菜是什麼？

剛出鍋的**花生**軟而韌，等到涼了，香脆的口感才能顯出來，這時可以撒上一撮鹽或糖調味，也有人愛放一點孜然。如果倒上陳醋，就成了老醋花生，酸香開胃，是下酒的好菜。

說到下酒的好菜，**清大洋芋片**更是一絕，不管是配紅酒、白酒或啤酒，在嘴裡各有千秋，十分百搭。

<Native Ads>

土豆也是百搭的食材，可炒可蒸可烤可煮，無論吃飯還是**喝酒**，總有它在裡面湊熱鬧。在土豆絲頂上撒上香蔥，想吃點辣的放上切碎的干辣椒粒，然後燒一勺滾燙的花椒油澆上去，刺啦一聲，熱油激出來的香味就填滿了每個縫。

Multi-Modal, Transfer Learning



Semantic-Preserving Image Synthesis



Fast-RSPer



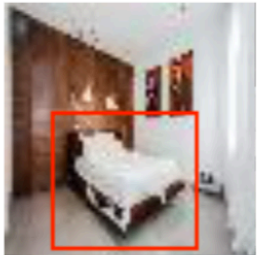
(a) Ref



(b) Pixel-VAE ($\mathbf{z}^{(1)}$, $\mathbf{z}^{(2)}$)



(c) Fast-RSPer



(d) Ref

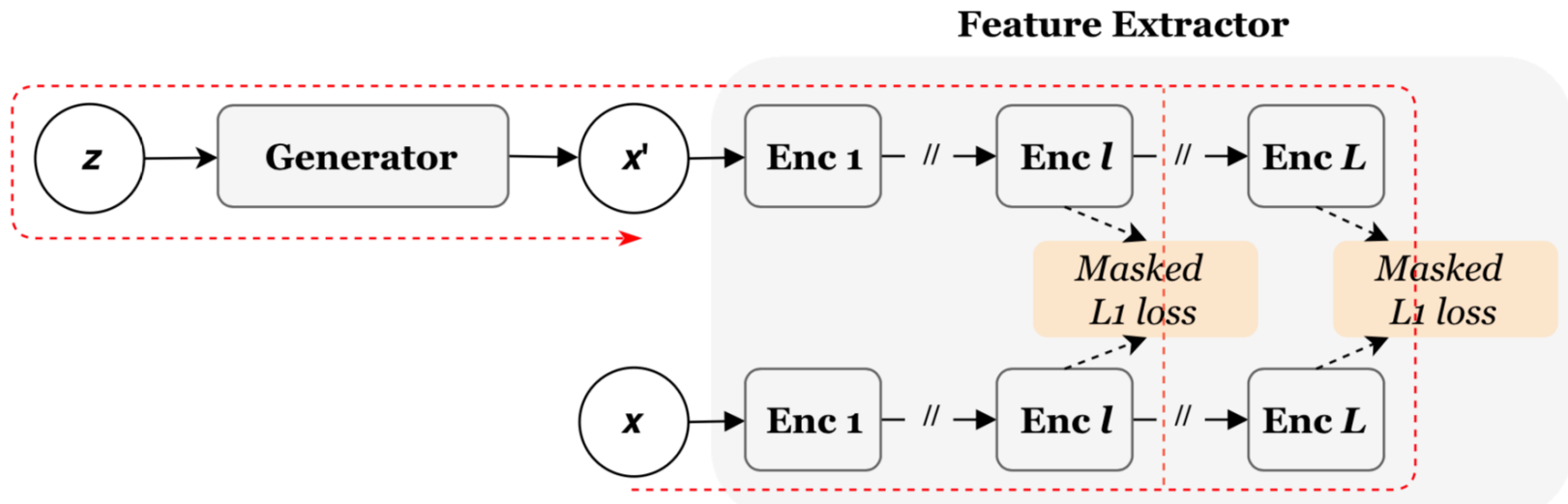


(e) Pixel-VAE ($\mathbf{z}^{(1)}$, $\mathbf{z}^{(2)}$)



(f) Fast-RSPer

Model



- Where does the ***creativity*** some from?

This is an Ad!

AI;DB Bootcamp

- AI for Autonomous Database Systems
- *This summer*

