Self-Introduction

Outline

Background

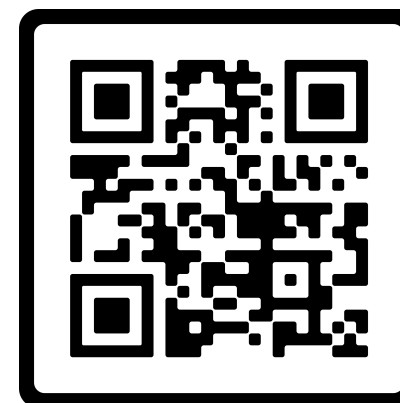Experiences

Skill Set

Sheng-Yen Chou (周聖諺)

- Senior student major in **CS, NTHU(國立清華大學)**

- **Graduate in 2022 with B.S.** degree(expected)

- Entrepreneur and enthusiast in **machine learning** and **large-scale distributed systems**.

- Developer of open source distributed database: **ElaSQL and VanillaDB**

- Maintain a **blog** and **Github**, which **keep recording and sharing the knowledge.**
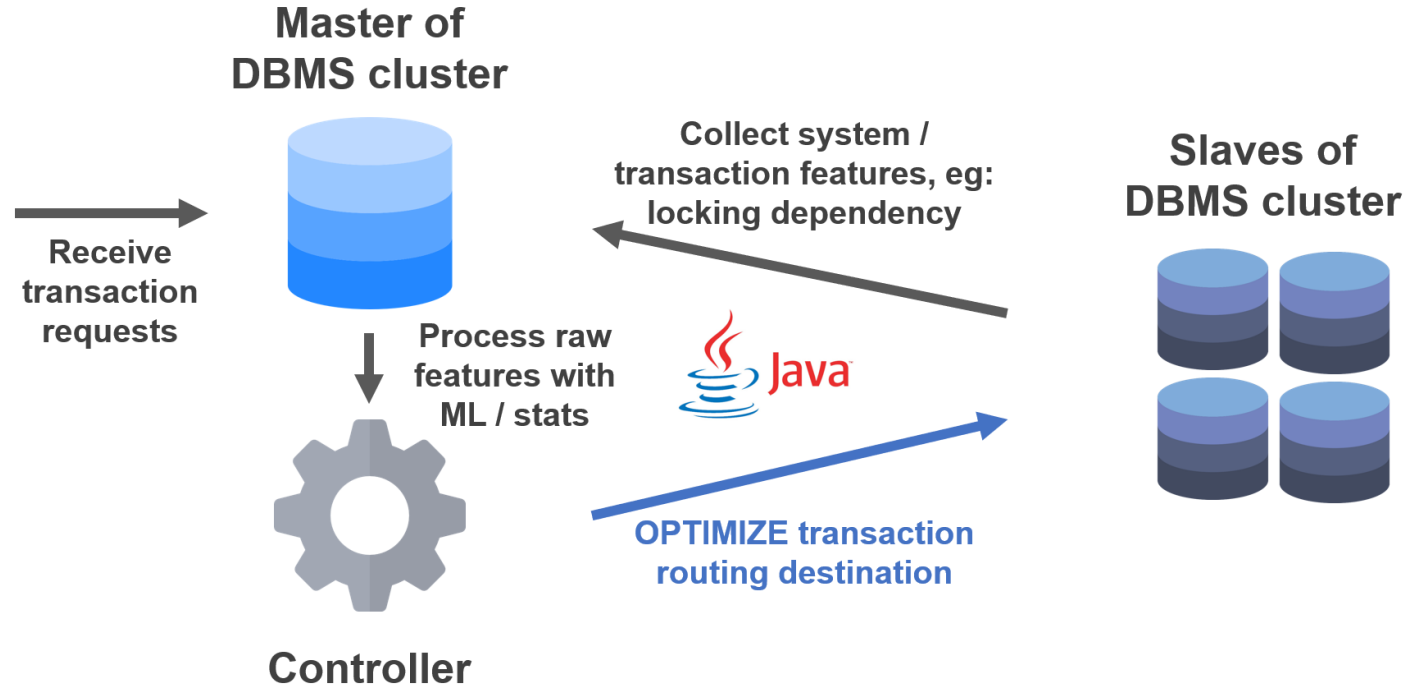
MY BLOG

GITHUB

Experience Overview

- Research assistant in NTHU Datalab

  - Join **distributed database system** research group, **optimize the transaction routing problem with ML techniques. (Java)**

  - Join **machine learning** research group, **propose a new image synthesis algorithm: GA-NTK. (Python)**

- Co-founder of student startup LEAFHOPPER IO

  - Lead a team of 7 people and **build a traceability system** for Dung-Ding Oonlong tea **in cooperation with Lu-Gu township government. (PostgreSQL, Kubernetes, Docker)**
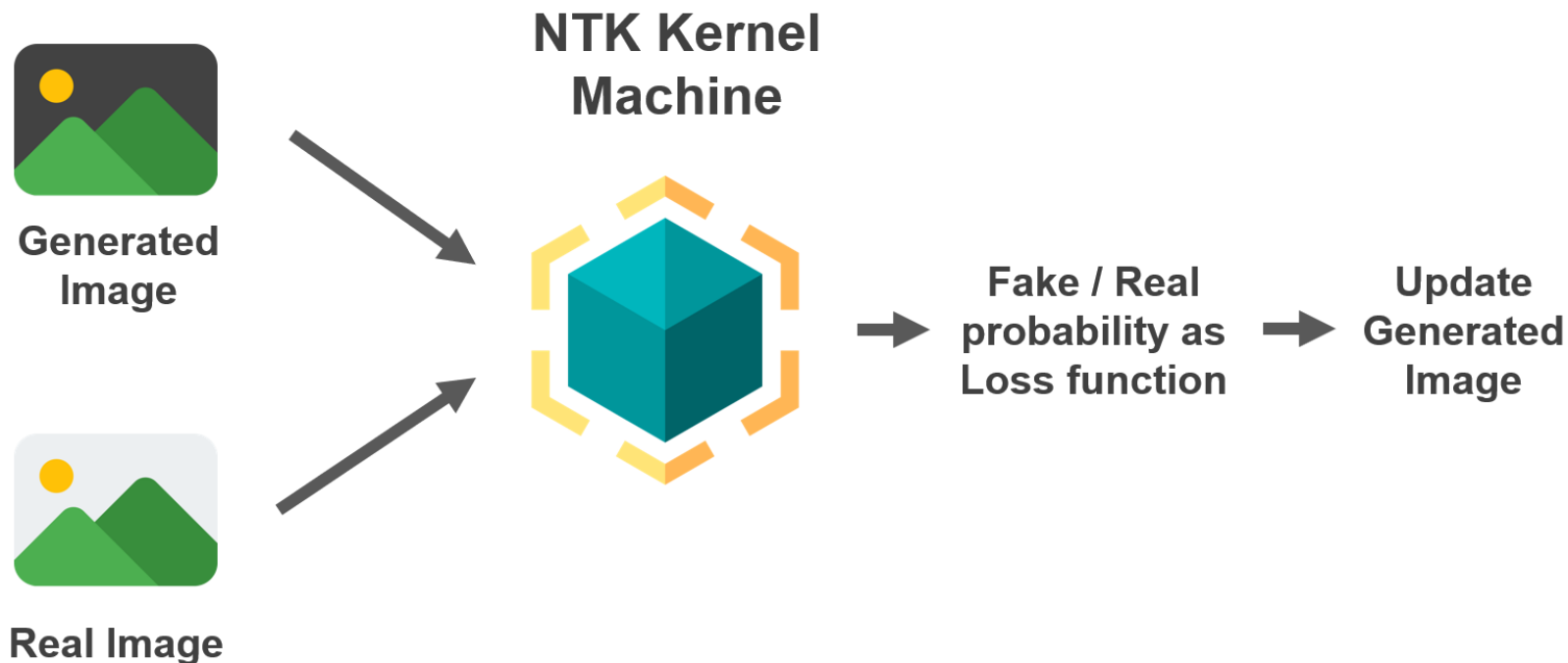
- And many others…

In Distributed Database Research Group

- 2 main contribute to the open source database project: **ElaSQL and VanillaDB**.

- Implement the **prototype of the "DependencyAnalyzer" component** with **Java**.

- **Reproduce experiments of the paper** "MB2: Decomposed Behavior Modeling for Self-Driving Database Management Systems" to **verify the feasibility** of the topic.
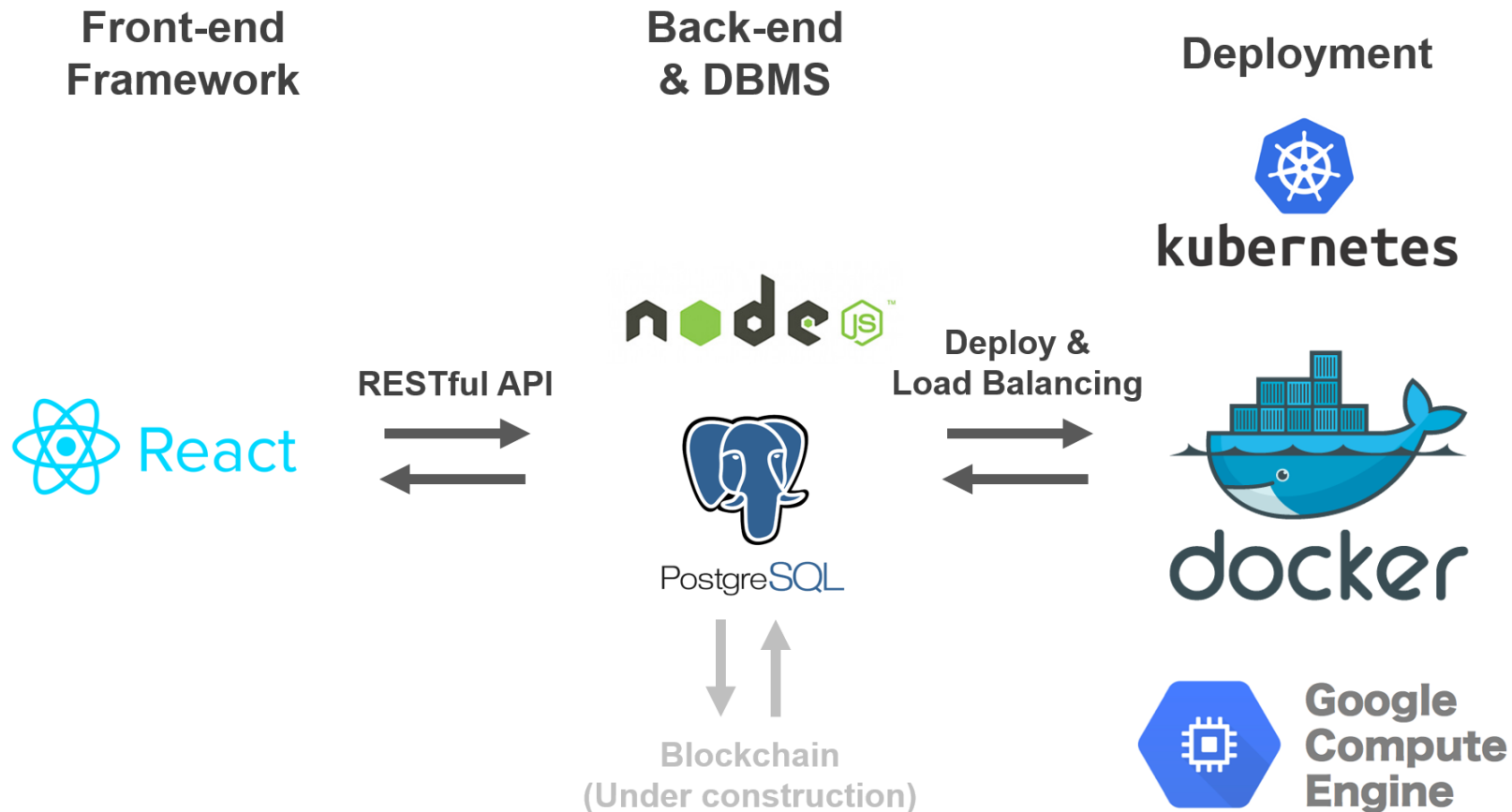
- The paper is under writing

In Machine Learning Research Group

- Propose a **new image synthesis algorithm**: GA-NTK, which can **generate competitive images in comparison to GANs with only 64 ~ 256 images**

- Reduce **bilevel optimization problem of GANs to single-level one**, **stabilize the training progress of GANs, and prevent vanish gradients.**

- The paper is under **submission to CVPR 2022**

NTK Kernel Machine

Generated Image

Real Image

Fake / Real probability as Loss function

Update Generated Image

Co-Founder Of Student Startup LEAFHOPPER IO

- Lead a **team of 7 people and negotiated with the local farmer in Lu-Gu township.**

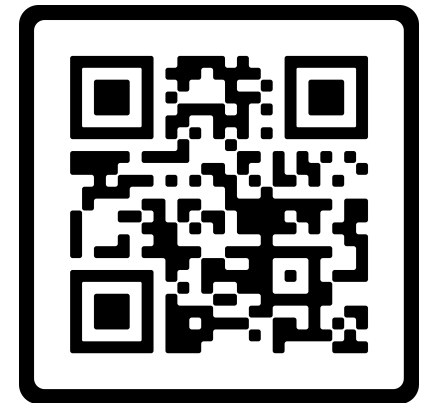- Build a **traceability system** and online selling platform for Dong-Ding Oolong tea in **cooperate with Lu-Gu township government.**

Front-end Framework

Back-end & DBMS

Deployment

RESTful API

Deploy & Load Balancing

Blockchain (Under construction)

Skill Set

- **Machine Learning** (1 paper under submission) & **Distributed Database researches**
- **Entrepreneur & Team Player**
- Programming language
  - **Java, Python, C++, R**
- Deployment
  - **Kubernetes, Docker Swarm, Google Cloud, Linux**
- DBMS
  - **PostgreSQL, MySQL**
- Frameworks
  - **React, Node.js**

MY BLOG

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Thank You For Listening