PROFILE

CHUNG CHI-JUNG

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Bachelor and Master of Electrical Engineering

- National Cheng Kung University (NCKU)
- Computational Systems Biology Lab

Skills

- Bioinformatics
- Big Data Analysis
- Full Stack Web Development
- Deep Learning
- Linux, Git, Docker
- Python, C, C++, Shell

EXPERIENCE

- Began learning C++ in high school and C, Java in college
- Experienced in **web design** in college, including HTML, CSS, JavaScript, Node.js, SQL...
- Studied machine learning in college and self-taught Python
- Studied **deep learning** and **data analysis** in the master's program
- Contributed to an industry-academia collaboration project about website infrastructure
- Collaborated with the University of Chicago to solve biological problems

Server Administrator (2022 - 2024)

- Maintained Linux servers and websites in Computational Systems Biology Lab
- Set up a NAS in the laboratory, organized and planned backup mechanisms
- Educated new members in basic Linux operations and website development techniques

ACHIEVEMENTS

Master's Thesis

- sRNA Analyst: A Web Tool for In-depth Analysis of sRNA-seq Data. (Preparing for submission in 2024)

Collaborative Papers

- Crosslink-induced mutation analyses of CLASH data suggest PIWI Argonaute adopt distinct binding conformations for canonical and non-canonical target recognition. (Under submission in 2024)
- Transcriptome-wide analysis of piRNA binding sites suggest distinct mechanisms regulate piRNA binding and silencing in C. elegans. (Published in RNA Journal, March 2023)
- Enhancing Quality of Life based on Physical Activity for Indonesian Elderly: A Preliminary Study for Design Recommendation. (Published in IEEE International Conference on New Media Studies, 2019)

Award

- 2023 Phi Tau Phi Honorary Member

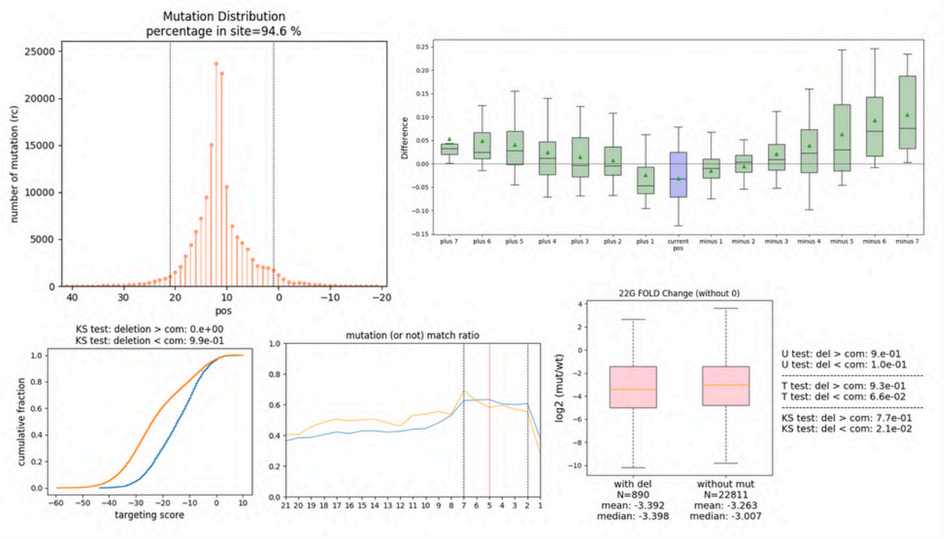
ENGAGEMENTS

- Actively participated in online seminars organized by companies such as Google, AWS, and Nvidia.
- Served as a core member of Google Developer Student Clubs (GDSC), responsible for studying and promoting natural language processing (NLP) techniques.
- Served as a core member of NCKU Mountaineering Club, responsible for reviewing team safety and participating in rescue missions. Served as a guest lecturer for the EMBA program.

TABLE OF PROJECTS

For more projects, please visit my website:
https://ryanccj.github.io/projects

PORTFOLIO

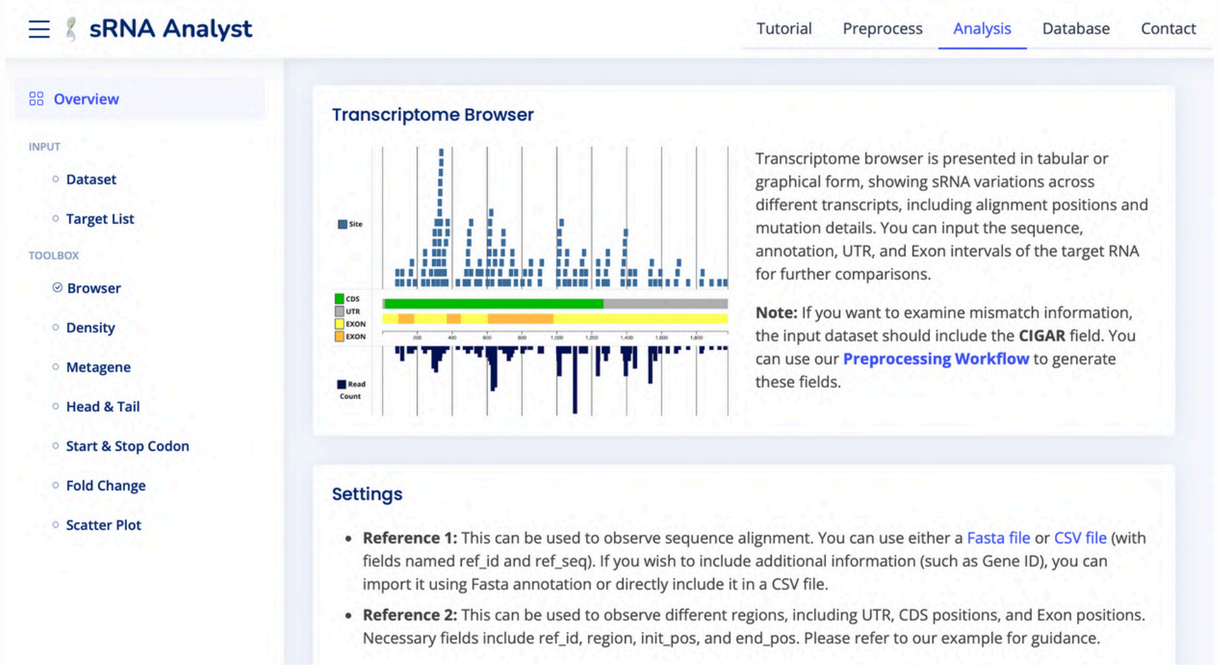


01 sRNA Analyst Website & Python Toolkits

sRNA Analyst is a web-based analysis tool optimized for sRNA-seq data, including a complete data preprocessing workflow, downstream analysis tools, and a collection of sRNA references and experimental datasets.

For more details:

- https://ryanccj.github.io/blog/2024/sRNA-Analyst
- https://ryanccj.github.io/blog/2024/RNAseq-Analysis-Toolkit



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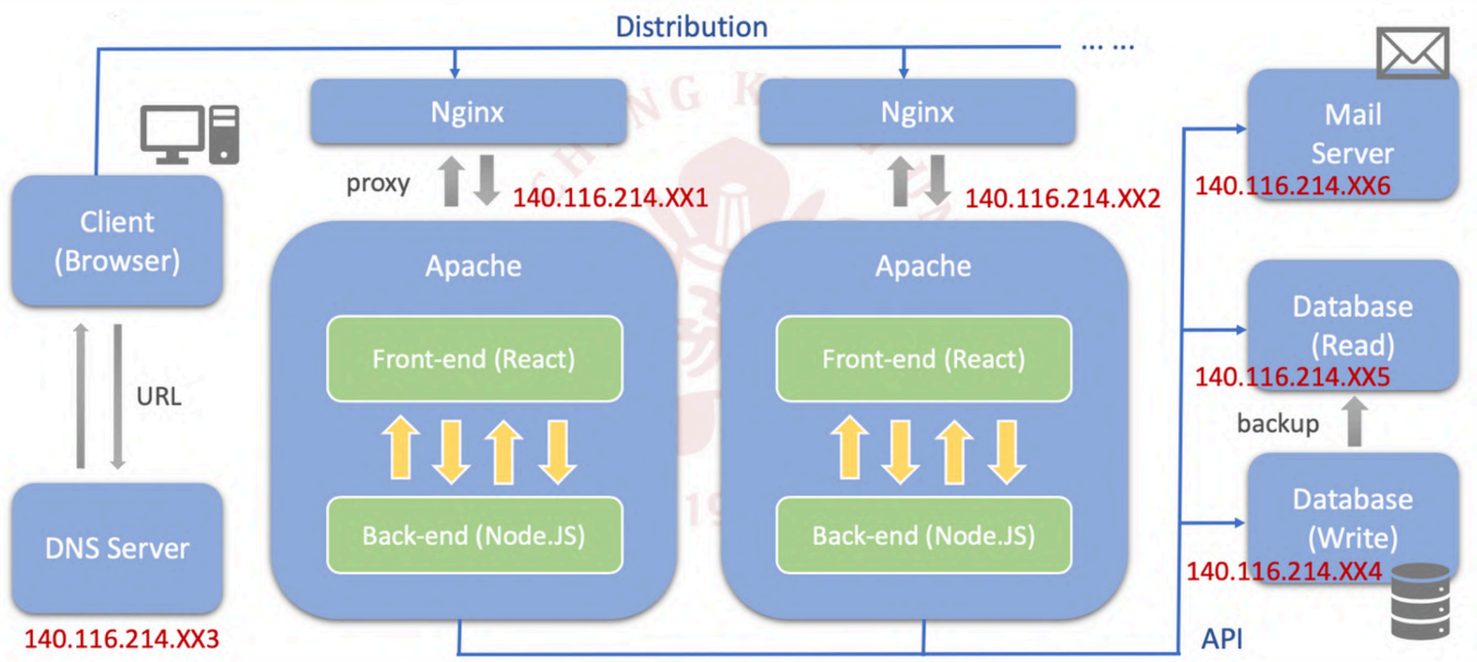


02

Industry-Academia Collaboration: Internal Website Infrastructure

We assisted a company in moving its AWS website to workstations, including planning several Linux servers for load balancing and database read-write separation, as well as redesigning the website's front-end and back-end architecture.

For more details:

- https://ryanccj.github.io/blog/2022/web-infra

PORTFOLIO

Guide and Tour Commentary System

A mobile web app that provides guided services for the the ancient Tianan City. It allows users to navigate through the past and present maps, interact with physical guides, and leave comments.

For more details:

https://ryanccj.github.io/blog/2018/Find-Deqingxi

03

Blogging Platform

A practice project about how to use Django full-stack framework for creating a blog. It includes frontend template and form design, backend SQL database setup, user login functionality, and website deployment.

For more details:

https://ryanccj.github.io/blog/2021/Djangol

PORTFOLIO

04

Deep Learning Projects about Image Recognition & NLP

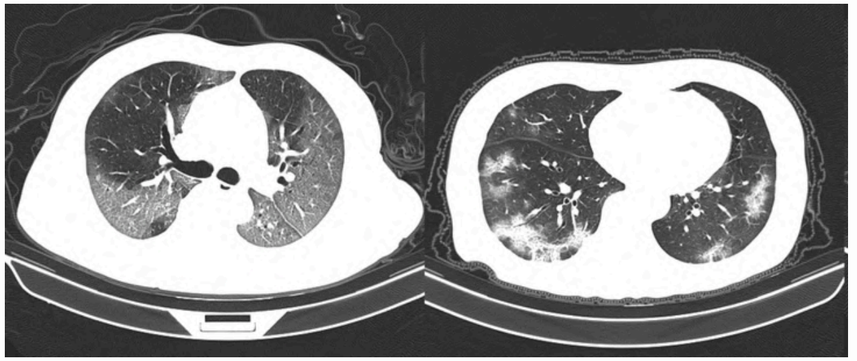
Determining COVID-19 patients from CT scans and using the YOLO model to identify mask-wearing.

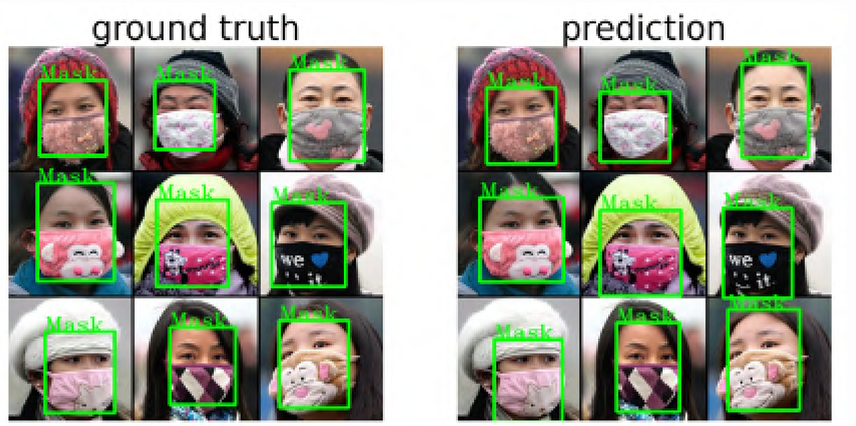
For more details (Image):

- https://ryanccj.github.io/blog/2022/image-recognition
- https://ryanccj.github.io/blog/2022/image-recognitionII

For more details (NLP):

- https://ryanccj.github.io/blog/2023/GDSC





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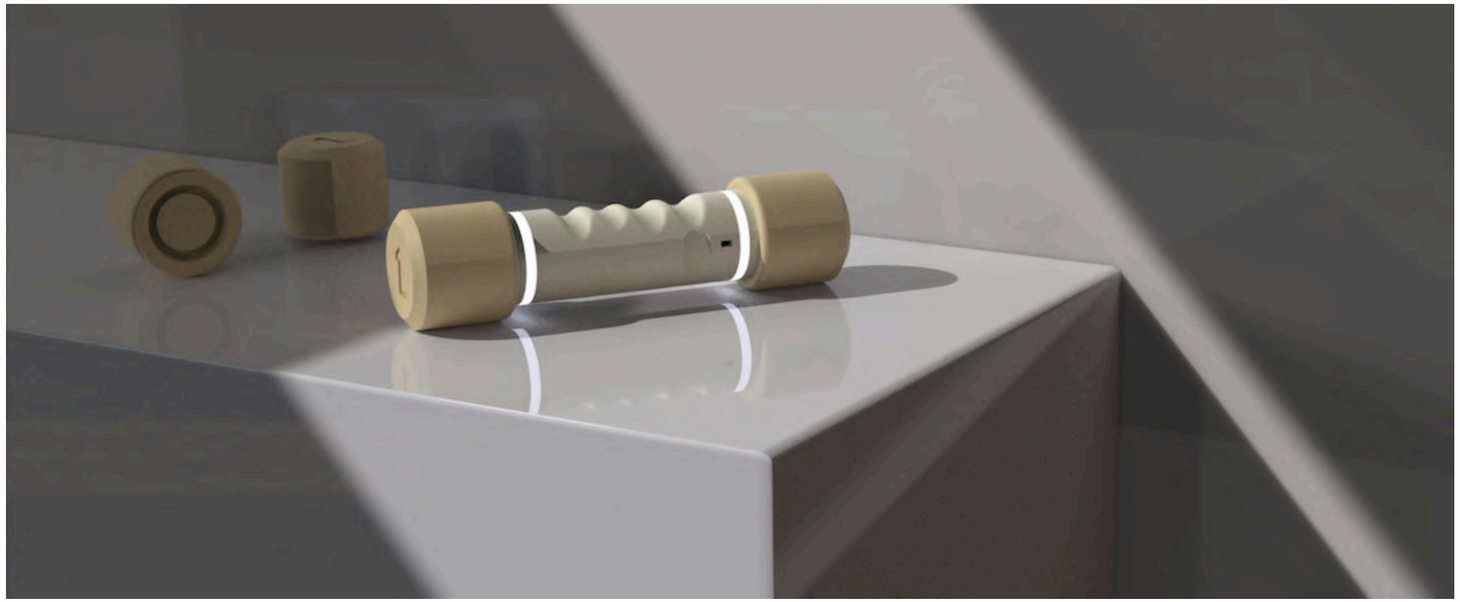

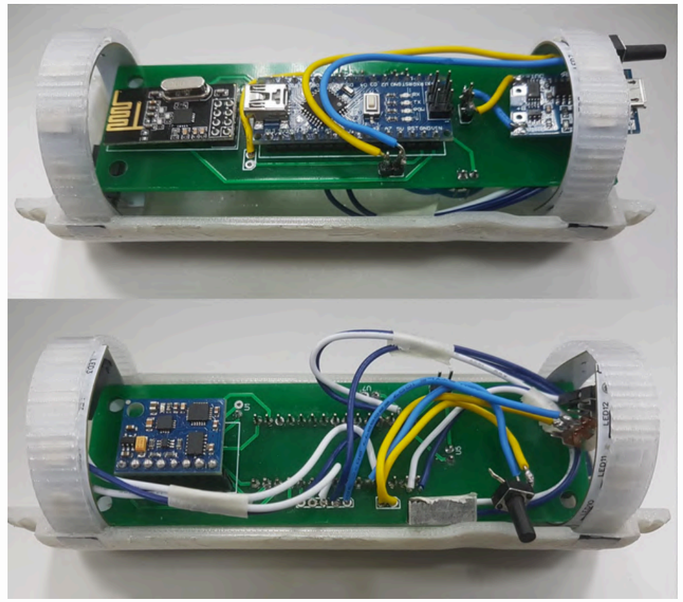

05 Smart Dumbbell Chip Development

We collaborated with the Industrial Design Department to develop a smart dumbbell that can detect whether the movements of rehabilitation patients are correct, and successfully presented our paper in Indonesia.

For more details:
https://ryanccj.github.io/blog/2019/smart-dumbbell

CONTACT

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