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.

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

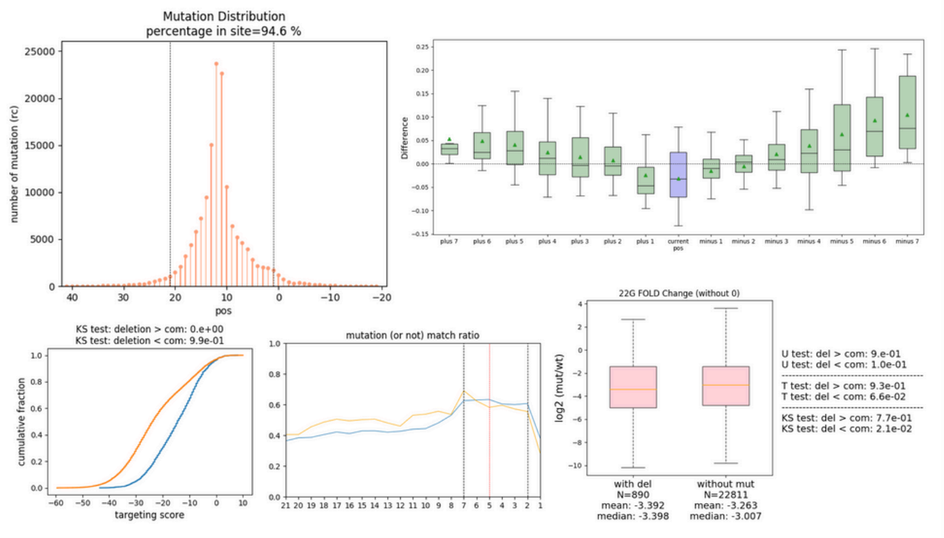
ENGAGEMENTS

- Certified in learning projects organized by 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

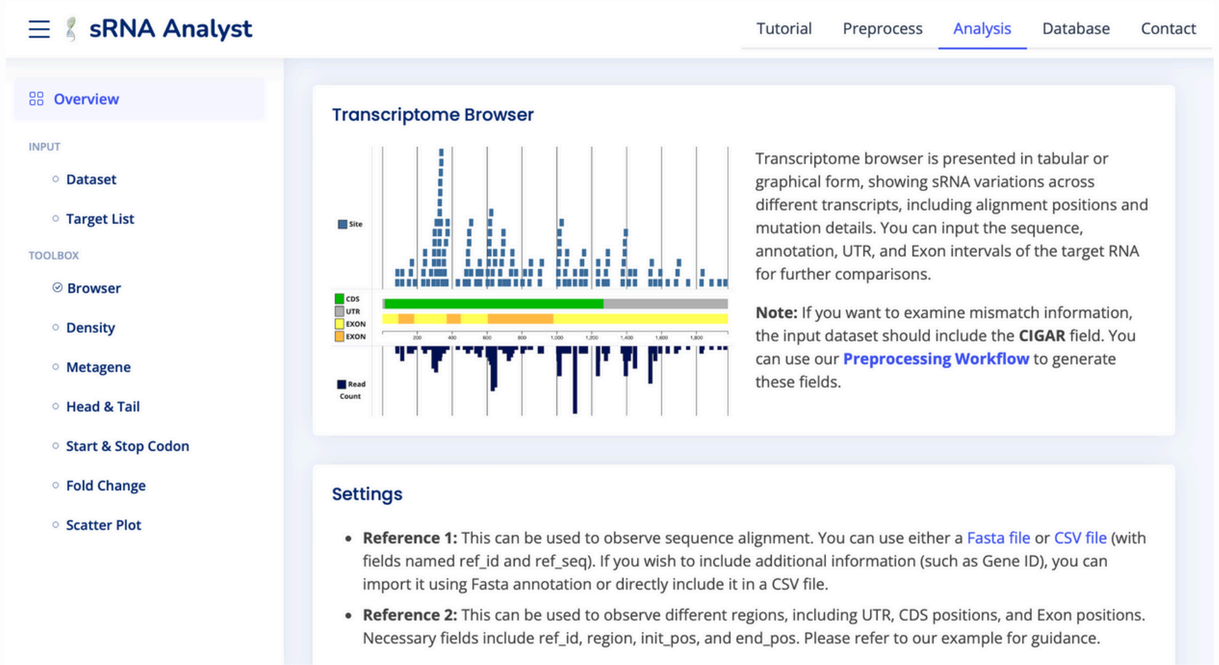


01 sRNA Analyst Website & Python Toolkits

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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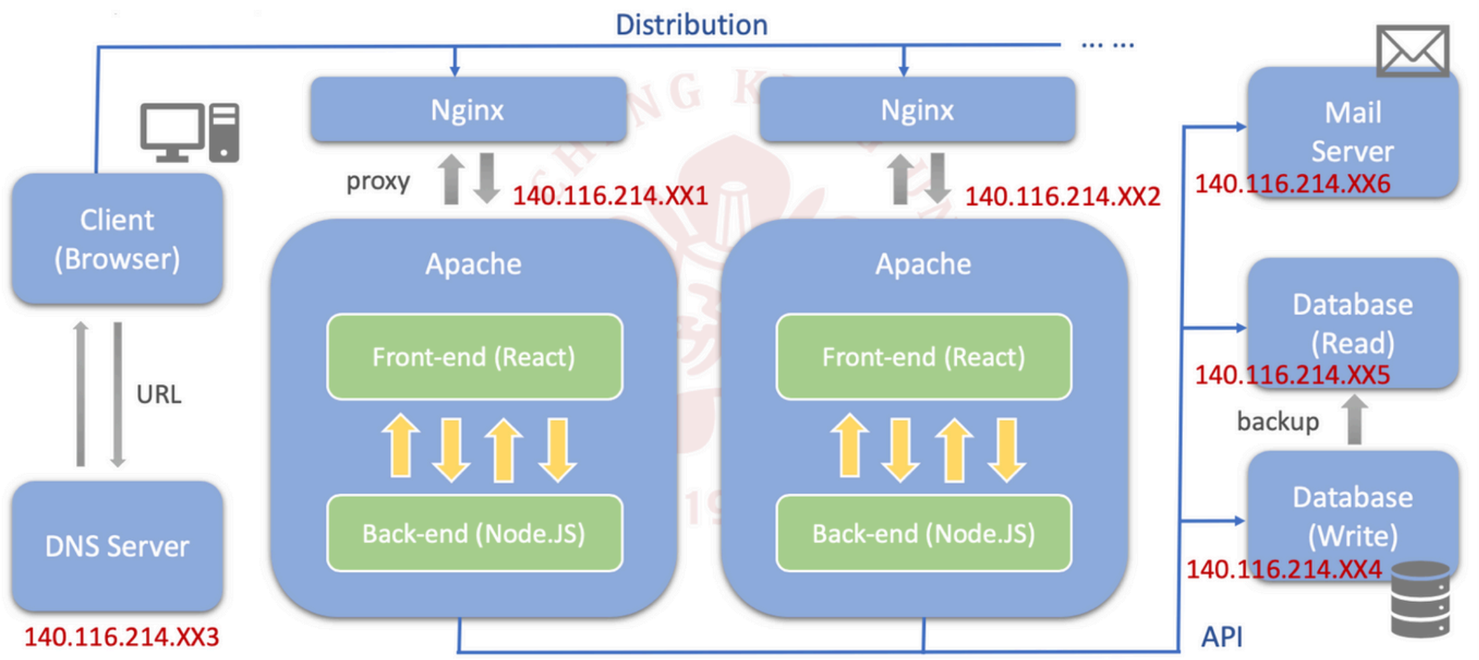

02

Industry-Academia Collaboration: Large-scale 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

03

Deep Learning Projects about Image & Natural Language

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

Researching NLP techniques in the Google community, fine-tuning LLMs, and building RAG agents.

For more details (NLP, LLM):

- https://ryanccj.github.io/blog/2023/GDSC
- https://ryanccj.github.io/blog/2024/LLM-I
- https://ryanccj.github.io/blog/2024/LLM-II
- https://ryanccj.github.io/blog/2024/LLM-III

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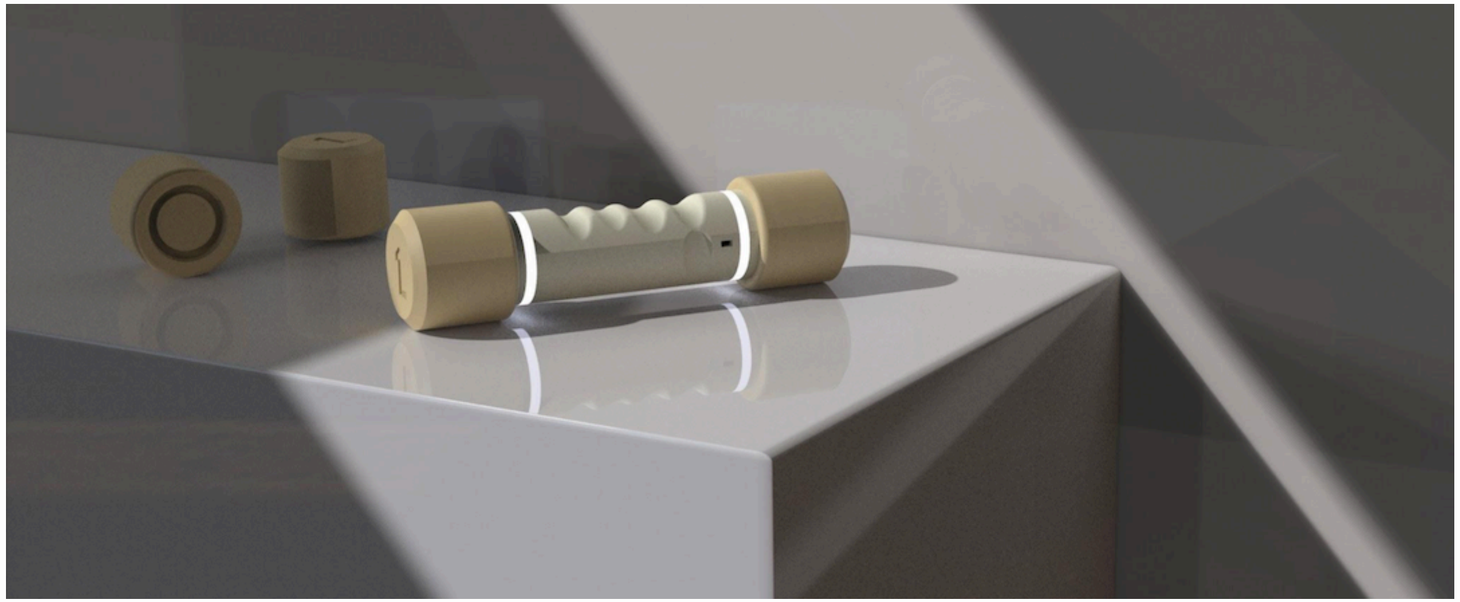

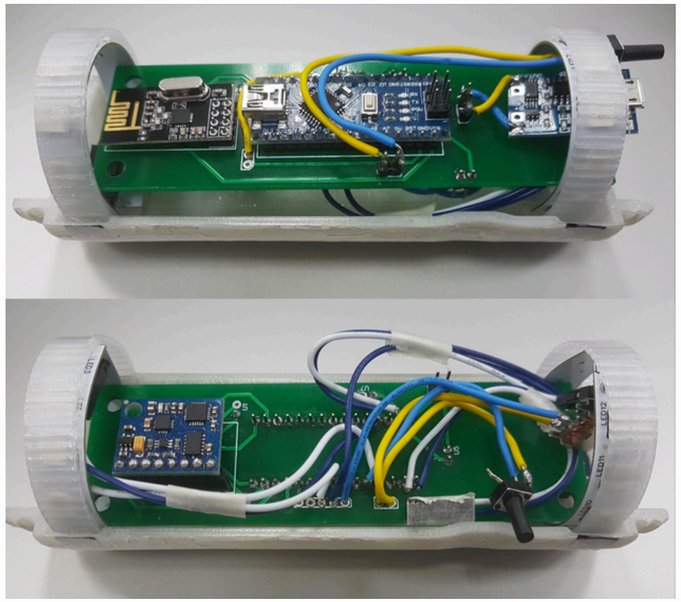

04 Smart Dumbbell Chip Development

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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