Chung-Yu (John) Wang

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EDUCATION

York University *Toronto, Canada*
M.Sc. of Computer Science *Sep. 2023 - Apr. 2025 (Expected)*
National University of Kaohsiung *Kaohsiung, Taiwan*
Bachelor of Information Management, GPA: 3.52/4.0, Last 2 Year Credits: 3.96/4.0 *Sep. 2018 - Jun. 2022*
Award: Second Prize, Graduation Project Competition, IM, NUK

- Awarded to top 3 teams which designed the most prominent graduation project or system.

PUBLICATION

- Kailun Jin, **Chung-Yu Wang**, Hung Viet Pham, Hadi Hemmati, "Can ChatGPT Support Developers? An Empirical Evaluation of Large Language Models for Code Generation" 21st International Conference on Mining Software Repositories (MSR '24)
- T.-H. Yang*, **Chung-Yu Wang†**, H.-C. Tsai†, Y.-C. Yang† and C.-T. Liu, "YTLR: a web service for automatic yeast transcription factor-gene association extraction from the literature" Computational and Structural Biotechnology Journal, vol. 20, pp. 4636-4644, 2022 (SCI 2022 impact factor = 6.155, Ranking 23.6% (70/296) in Biochemistry & Molecular Biology)
- T.-H. Yang*, **Chung-Yu Wang†**, H.-C. Tsai†, and C.-T. Liu†, "Human IRES Atlas: an integrative platform for studying IRES-driven translational regulation in humans" Database, vol. 2021: article ID baab025; doi:10.1093/database/baab025, 2021. (SCI 2020 impact factor = 3.451, Ranking 24% (14/58) in Mathematical & Computational Biology)
- **Chung-Yu Wang†**, K.-C. Tu†, Y.-C. Yang†, H.-C. Tsai† and T.-H. Yang*, "High-efficiency classification of agricultural jujube injured causes using EfficentNet" Domestic conference paper in 2021 International Conference on Technologies and Applications of Artificial Intelligence (TAAI): Taichung, Taiwan. (Oral)

RESEARCH EXPERIENCE

Smart System Testing Lab, York University
Research Assistant (Supervisor: Dr. Hung Viet Pham) *Sep. 2023 - Present*

- Tested LLMs with software engineering tasks such as code generation.
- Created innovative prompting pipeline and outperformed the state-of-the-art zero-shot approach by 7.6% and 3.9% when paired with GPT-3.5 and GPT-4 on mathematical benchmark datasets.

Computational Biology & Intelligence System Lab, National University of Kaohsiung
Research Assistant (Supervisor: Dr. Tzu-Hsien Yang) *Jan. 2021 - Jan. 2022*

- Crawled data from websites and preprocessed data as Natural Language Processing (NLP) model input.
- Fine-tuned BERT models to identify the transcription factor-gene pairs association from biomedical publications with 83% AUC values, which is higher than 26% of other methods.
- Used ROC curve analysis technique to evaluate the results of different Internal Ribosome Entry Site (IRES) prediction tools.

PROJECT EXPERIENCE

"Pick Up Choose": An automatic grading application for jujubes *Aug. 2021 - Dec. 2021*

- Fine-tuned an EfficientNet model for jujubes injured causes classification with 93% AUC values.
- Fine-tuned YOLOv4 object detection models to capture jujubes location information in images.
- Designed an application for automatic classifying jujube grades on smartphones with Flutter.

"Who's the victim?": A computer game designed with Java *Mar. 2021 - Jun. 2021*

- Designed a computer game which ideas/contents were adapted from the board game called "Bang!".
- Designed and Implemented game functions, events, and GUI interfaces with Java programming.

"Flight Inquiry System": A website for inquiring about flight information *Sep. 2020 - Jan. 2021*

- Used ERD, Relational Model, UML, and Normalization to systematically construct the database.
- Filtered data from the database with SQL query and presented the searching result on a simple website.

TECHNICAL SKILLS

Programming Skills	Python, Java, C, HTML/CSS, PHP, R, JavaScript
Database	MySQL, phpmyadmin, PostgreSQL, MongoDB
ML Frameworks	Keras, Pytorch, Tensorflow