Wen-Zhong Fang

886-966-309-839 | r10921071@ntu.edu.tw | github.com/littleCube2019

Education

National Taiwan University Taipei, Taiwan
Master of Science in Electrical Engineering (Computer Science Group) *Sep. 2021 – Aug. 2023*
- Advisor: Tian-Li Yu (Taiwan Evolutionary Intelligence Laboratory)
- GPA: 4.23/4.3, Rank: 5/94
- Relevant Courses: Genetic Algorithms, Computer Graphics, Convex Optimization, Computer Gaming Theory, Computational Cognitive Neuroscience

National Chengchi University Taipei, Taiwan
*Bachelor of Science in Computer Science **and** Bachelor of Arts in Public Finance* *Aug. 2016 – Jan. 2021*
- Double Major, GPA: 4.16/4.3, Rank: 2/110
- Relevant Courses: Operating Systems, Algorithms, Computer Architecture and Organization, Seminar on Web Information Retrieval, Formal Language and Automata Theory

Projects

Chinese Dark Chess AI | *C/C++*
- Fourth place in the 15th NTU CSIE CUP Computer Chinese Dark Chess Competition
- Using Alpha–Beta Pruning, Bitboard, Transposition Table, Monte-Carlo Tree Search, and Probability Model

Switch Thinking - The Puzzle Game | *C#/Unity*
- 1000+ gameplays, 1500+ views on itch.io
- Implemented the game to learn software engineering, apply OOP techniques, and address issues such as race conditions.

Geng-Oriented Obtainer System for LAugh - 2020 NCCU Special Topic | *Python/NLP/GNN*
- Second place in the 2020 NCCU Special Topic Competition.Using natural language processing and graph neural networks to extract highlights from YouTube videos and recommend similar content based on contents.

Work Experience

Computer Programming (C/C++) at NTU, Teaching Assistant Sep 2021 – Jan 2022
- Assisted in course planning, automated homework grading using shell script, and set up an online judge platform

Learning with Limited Data, Research Assistant Sep 2022 – Jan 2023
- Active learning, Semi-supervised learning, and Data augmentation to maximizing the efficiency of data utilization

Research Experience and Conference

Ranging-Binding Genetic Programming for Symbolic Regression | *Python, C/C++* Master Thesis
- The proposed algorithm shows stronger optimization ability on 37 problems out of the Penn machine learning benchmarks on average than other SOTA genetic programming algorithms.
- Propose binding adaptation and feature selection to address the issues in first version

GP with Ranging-Binding Technique for Symbolic Regression | *Python, C/C++* Poster, GECCO '23
- **Wen-Zhong Fang**, Chi-Hsien Chang, Jung-Chun Liu, Tian-Li Yu
- Proposes a model-based genetic programming algorithm for symbolic regression, achieving statistically significant improvements over all other methods on 44% of the problems.

Relational Bayesian Optimization for Permutation | *C/C++* Poster, GECCO '23
- Bo-Wei Huang, **Wen-Zhong Fang**, Hsu-Chen Liao, Tian-Li Yu
- Proposed a novel permutation estimation of distribution algorithm (EDA) and implemented 2 additional EDAs, achieving the best performance among a total of 4 EDAs in 4 benchmark permutation problems on average.

Skills

Programming Languages: C/C++, C#, Python, Shell Script
Languages: Chinese (Native), English (TOEIC: 905/990)
Tools: Git, Docker, Vim, Linux