

Sheng-Ya Sandra Chiu

Hsinchu, Taiwan
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EDUCATION

National Tsing Hua University, Hsinchu, Taiwan 2022-present
M.S. in Information Systems and Applications candidate, College of EECS
Research fields: Human-Machine Interaction
Advisor: Dr. Shan-Hung Wu
Prominent coursework: User Experience Design, Randomized Algorithms

National Chengchi University, Taipei, Taiwan 2018-2022
B.S. in Management Information Systems, College of Commerce
GPA: 3.9/4.3
Courses taken: Programming Language (A+), Data Structure (A+), Algorithms (A+)

SELECTED PROJECTS

Efficient Personalized Learning: A Bandit Approach to Enhanced Repetition Learning 2023-present
Researching on personalized learning solutions, such as flashcard-based subject memorization, by incorporating repetition learning and Thompson Sampling for more efficient and effective review schedules

A Case Study of a Mobile App that Helps Users Achieve Life Goals 2022
Developed an Android version of Flora using Jetpack Compose and conduct an experiment studying the relation between social comparison and scheduling tools (n=60)

HybRe: A Hybrid Re-Encryption Approach for Privacy-Preserving Federated Learning 2022
Proposed a method combining differential privacy with homomorphic proxy re-encryption to enhance the data privacy of a federated learning model during the training process

M-Mode: Mosquito Simulator 2022
Built a game simulating a mosquito through Unity, where a user playing as a mosquito should defeat zombies and escape the maze, demo: <https://youtu.be/nj9RVZa701U>

Finefitness: A Fitness App for Anyone Who Wants To Be Fine 2021
Developed an Android app designed for beginners, featuring cost-effective consultation services and a visual analysis system, aimed at lowering fitness barriers

TEACHING EXPERIENCE

Teaching Assistant on CS565600 Deep Learning 2023 Fall, NTHU 2023
Introducing the topic of CNN, data pipelines, and Seq2Seq learning

Teaching Assistant on CS241001 Software Studio 2023 Spring, NTHU 2023
Introduced AWS-based implementation of dynamic website deployment, database, and authentication

WORKING EXPERIENCE

Algorithm Intern at China Engineering Consultants, Inc. (CECI), Taiwan 2021
Implemented machine learning models to predict highway accidents based on real-time traffic, weather, and historical accident data, to build a corresponding accident prediction website for public sector decision support

PUBLICATIONS

- S. Chiu**, Y. Tu, S. Chiu, and C. Hsu, 2021, 'Gesture-based Intention Prediction for Automatic Door Opening using Low-Resolution Thermal Sensors: A U-Net-based Deep Learning Approach,' *2021 IEEE Eurasia Conference on IOT, Communication and Engineering*, Yunlin, 29, October, pp. 1-4. 2021
- S. Chiu**, Y. Tu, and C. Chiu, 2021, 'An Effective Multi-Optimization Approach for Managing Products Portfolios and Logistics Based on NSGA-II,' *2021 International Conference on Information Management (ICIM)*, Taipei, 28 August, pp. 1-13. 2021

HONORS & AWARDS

- College Student Research Project Fellowship**, National Science and Technology Council 109-2813-C-004-060-H 2022
- NCCU MIS Undergrad Independent Research Competition - 3rd Place** 2021
Finefitness: A Fitness App for Anyone Who Wants To Be Fine
- College Student Research Project Fellowship**, National Science and Technology Council 110-2813-C-004-013-H 2021

SKILLS

Programming Language: Python, Kotlin, Java, R, HTML/CSS/JavaScript, MySQL
Software Library: Scikit-learn, Jetpack Compose, TensorFlow, React.js, Node.js
Language: Mandarin (native), English (proficient, TOEFL iBT 102)