CHIA-YI SU

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EDUCATION

University of Notre Dame *August 2022 - Present*
Ph.D. in Computer Science Engineering Notre Dame, IN

National Kaohsiung University of Science and Technology *August 2020 - June 2022*
M.S. in Electronics Engineering Kaohsiung, Taiwan, R.O.C.
Thesis : Study on Chinese Interactive Dialog System for Diseases Information Retrieval Cumulative GPA: 3.86 / 4.0
Advisor: Professor Tsong-Yi Chen

National Kaohsiung University of Science and Technology *August 2016 - June 2020*
B.S. in Electronics Engineering Kaohsiung, Taiwan, R.O.C.
Cumulative GPA: 3.78 / 4.0
Advisor: Professor Tsong-Yi Chen

PUBLICATIONS

Journal Articles (peer reviewed)

* indicates corresponding author

[J1] D.-J. Wang, T.-Y. Chen, and **C.-Y. Su** *, "AidIR: An Interactive Dialog System to Aid Disease Information Retrieval," *Applied Sciences*, vol. 12, no. 4, 2022. DOI: 10.3390/app12041875.

Conferences

[C1] D.-J. Wang, T.-Y. Chen, and C.-Y. Su, "MedBERT: Chinese medical document classification based on bert language model," Pingtung, Taiwan, R.O.C.: Symposium on Digital Life Technologies (DLT-2021).

[C2] D.-J. Wang, T.-Y. Chen, C.-Y. Su, and M.-F. Horng, "A dialog system for swine disease consultation in chinese language," Kaohsiung, Taiwan, R.O.C.: 2020 Workshop on Consumer Electronics (WCE2020), pp. 484–489.

WORK EXPERIENCE

University of Notre Dame August 2022 - present
Research Assistant *Notre Dame, IN*

· Conducting research on graph neural network with applications to nutritions

National Kaohsiung University of Science and Technology July 2020 - June 2022
Research Assistant *Kaohsiung, Taiwan, R.O.C.*

· Conducted research on interactive dialog system, natural language understanding, human–computer interaction, and reinforcement learning

· Proposed Minister of Science and Technology projects

· Conducted Minister of Science and Technology projects
· Composed final reports for Minister of Science and Technology projects

National Kaohsiung University of Science and Technology September 2019 - June 2022
Teaching Assistant *Kaohsiung, Taiwan, R.O.C.*

· Instructed natural language processing and reinforcement learning (graduate-level)
· Advised undergraduate students on the software engineering course
· Designed software engineering course schedule
· Advised in-service master's program student on thesis

Hewlett Packard Enterprise July 2019 - June 2020
College Intern *Taipei, Taiwan, R.O.C.*

· Automated 100 test cases with Robot Framework
· Trimmed down test time from 10 days to 4 hours only
· Proposed and developed Intuitive Web Test Automation Functions to allow other developers to develop automation programs with intuitive command
· Assisted to teach automation course
· Developed web that allows user to retrieve information front-end

TECHNICAL SKILLS

Programming Languages	Python, C++, LaTex, and SQL
Frameworks	Pytorch, Hugging Face Transformers, BertViz, Numpy
Tools	Git, Vim, GCD

SELF-LEARNING ONLINE PROGRAMS

Introduction to Reinforcement Learning with David Silver	DeepMind
CS 285 Deep Reinforcement Learning	UC Berkeley
CS224n: Natural Language Processing with Deep Learning	Stanford University

MINISTER OF SCIENCE AND TECHNOLOGY PROJECTS

(Sub-Project 3) Mastitis Detection and Milk Quality Analysis System Based on Multi-Task and Multi-Head Attention CNN Kaohsiung, Taiwan, R.O.C.

· Composed proposal to submit to Minister of Science and Technology, Taiwan, R.O.C.
· Designed milk electronic conductivity sensor system
· Designed multi-task and multi-head attention CNN to analyze milk electronic conductivity for Mastitis detection and somatic cell count prediction

A Dairy Cattle Health and Quality Detection and Mobile Alert System Based on Faster R-CNN and RBF SVM Kaohsiung, Taiwan, R.O.C.

· Composed proposal to submit to Minister of Science and Technology, Taiwan, R.O.C.
· Designed statistical model to analyze dairy cattle activity level, natural language understanding and machine learning algorithms, information retrieval system, and object detection algorithm