

Chan-Jan (Jeff) Hsu

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[G](#) GoogleScholar | [g](#) github | [in](#) linkedin | [leetcode](#) | [kaggle](#)

RESEARCH INTERESTS

RESEARCH INTERESTS Spoken LLM | Generative Language Modeling | Multimodal Understanding | Deep Learning

EDUCATION

NATIONAL TAIWAN UNIVERSITY

2016-2020

B.S IN MATERIAL SCIENCE AND ENGINEERING

- GPA:3.88/4.30 (3.77 out of 4 in US system), 16th/53, 167+6 (Exempted) credits

NATIONAL TAIWAN UNIVERSITY

2020-2022

M.S IN DATA SCIENCE DEGREE PROGRAM, COLLEGE OF EECS ASSOCIATED WITH ACADEMIA SINICA

- GPA:4.27/4.30 (4 out of 4 in US system), 1st/16, Graduate Representative for Data Science Degree Program

THESIS

ENHANCING SELF-SUPERVISED LEARNING BY MULTIMODAL INFORMATION

SUPERVISED BY PROFESSOR HUNG-YI LEE AND DR. YU TSAO

EXPERIENCE

VISITING RESEARCH SCHOLAR

2025/08- / CMU

- Supervisor: Professor [Carlos Busso](#). Spoken Language Models

MEDIA TEK RESEARCH RESEARCH SCIENTIST

2022-2025/08 / Taipei

- Research Lead of [Generative Fusion Decoding](#), an algorithm for late fusion between any models
- Research Lead of BreezyVoice, a realistic TTS system on Taiwanese Mandarin | [GitHub](#)
- Research Lead on Breeze ASR 25 (Twister), an automatic speech recognition system enhanced through a synthetic data feedback loop | [HuggingFace](#)
- Extended Pretraining of Language Models to support Traditional Chinese in a Research Group of 5+ [Breeze-NEWS](#) | [Breeze2-NEWS](#) | [GitHub](#) | [HuggingFace](#)
- Curated TMMLU, a Chinese version of the MMLU benchmark from authentic Taiwan examinations | [GitHub](#)

- Technical Advisor of "ClairAudience: Enhancing ASR Systems with Internal Language Model Adaptation"

MACHINE LEARNING (EE5184) TEACHING ASSISTANT

2021Spring, 2022Spring / NTU

RESEARCH PUBLICATIONS

ON THE FALLACY OF GLOBAL TOKEN PERPLEXITY IN SPOKEN LANGUAGE MODEL EVALUATION

2026 ACL Findings

CHAN-JAN HSU, LIANG-HSUAN TSENG, YI-CHENG LIN, YEN-CHUN KUO, JU-CHIEH CHOU, KAI-WEI CHANG

HUNG-YI LEE, CARLOS BUSO

GROUP THINK: MULTIPLE CONCURRENT REASONING AGENTS COLLABORATING AT TOKEN LEVEL GRANULARITY TEXT RECOGNITION

Arxiv

CHAN-JAN HSU, DAVIDE BUFFELLI, JAMIE MCGOWAN, FENG-TING LIAO, YI-CHANG CHEN, SATTAR VAKILI, DA-SHAN SHIU

LET'S FUSE STEP BY STEP: A GENERATIVE FUSION DECODING ALGORITHM WITH LLMs FOR MULTI-MODAL TEXT RECOGNITION

2025 ACL Findings

CHAN-JAN HSU, YI-CHANG CHEN, FENG-TING LIAO, PEI-CHEN HO, YU-HSIANG WANG, PO-CHUN HSU, DA-SHAN SHIU

EFFICIENT ANY-TO-ANY LATE FUSION IMPLEMENTATION OF GENERATIVE FUSION DECODING

2025 AAAI OSAI4MU

CHAN-JAN HSU, MU-XI CHEN, YI-CHANG CHEN, DA-SHAN SHIU

A SELF-REFINING FRAMEWORK FOR ENHANCING ASR USING TTS-SYNTHESIZED DATA

2025 ASRU

CHENG KANG CHOU*, CHAN JAN HSU*, HO-LAM CHUNG, LIANG-HSUAN TSENG, HSI-YUN CHENG, KUAN-PO HUANG, YU-KUAN FU

HUNG-YI LEE

T5LEPHONE: BRIDGING SPEECH AND TEXT SELF-SUPERVISED MODELS FOR SPOKEN LANGUAGE UNDERSTANDING VIA PHONEME LEVEL T5

2023 ICASSP

CHAN-JAN HSU, HO-LAM CHUNG, HUNG-YI LEE, AND YU TSAO

ANALYZING THE ROBUSTNESS OF UNSUPERVISED SPEECH RECOGNITION

2022 ICASSP

CHAN-JAN HSU*, GUAN-TING LIN*, DA-RONG LIU, HUNG-YI LEE, AND YU TSAO

• First Co-author

XDBERT: DISTILLING VISUAL INFORMATION TO BERT FROM CROSS-MODAL SYSTEMS TO IMPROVE NATURAL LANGUAGE UNDERSTANDING

2022 ACL MAIN

CHAN-JAN HSU, HUNG-YI LEE, AND YU TSAO

BRIDGING SPEECH AND TEXTUAL PRE-TRAINED MODELS WITH UNSUPERVISED ASR

2023 ICASSP

JIA TONG SHI, CHAN-JAN HSU, HO-LAM CHUNG, DONGJI GAO, PAOLA GARCIA, SHINJI WATANABE, ANN LEE, HUNG-YI LEE

ENTREPRENEURSHIP PUBLICATIONS

BREEZE-7B TECHNICAL REPORT

Arxiv

MEDIA TEK RESEARCH

EXTENDING THE PRE-TRAINING OF BLOOM FOR IMPROVED SUPPORT OF TRADITIONAL CHINESE MODELS, METHODS AND RESULTS

Arxiv

PHILIPP ENNEN, PO-CHUN HSU, CHAN-JAN HSU, CHANG-LE LIU, YEN-CHEN WU ET AL.

ADVANCING THE EVALUATION OF TRADITIONAL CHINESE LANGUAGE MODELS: TOWARDS A COMPREHENSIVE BENCHMARK SUITE

Arxiv

CHAN-JAN HSU, CHANG-LE LIU, FENG-TING LIAO, PO-CHUN HSU, YI-CHANG CHEN, DA-SHAN SHIU

BREEZYVOICE: ADAPTING TTS FOR TAIWANESE MANDARIN WITH ENHANCED POLYPHONE DISAMBIGUATION — CHALLENGES AND INSIGHTS

Arxiv

CHAN-JAN HSU, YI-CHENG LIN, CHIA-CHUN LIN, WEI-CHIH CHEN, HO LAM CHUNG, CHEN-AN LI, ET AL.

SCHOLARSHIP

COLLEGE STUDENT RESEARCH SCHOLARSHIP, NATIONAL SCIENCE COMMITTEE

2019

RESEARCH TOPIC: COMPUTATIONAL ANALYSIS ON NEW IDEAS CONVEYED IN LANGUAGE USING REDDIT CORPUS

SUPERVISED BY PROF. SHU-KAI, HSIEH

SUBSIDIES FOR ATTENDING INTERNATIONAL CONFERENCES

2022

GRANTED SUBSIDIES TO ATTEND THE 60TH ANNUAL MEETING OF THE ASSOCIATION FOR COMPUTATIONAL LINGUISTICS

INVITED TALKS AND SERVICE TO RESEARCH

GUEST LECTURER: NATIONAL TAIWAN UNIVERSITY, "EE5200: INTRODUCTION TO GENERATIVE AI"

2024

PRESENTED ON ADVANCEMENTS IN TRADITIONAL CHINESE LANGUAGE MODELS AND OUR GFD RESEARCH

SERVED AS A REVIEWER FOR ACL 2025

2025 ACL

SERVED AS A REVIEWER FOR AACL 2022

2022 AACL

ACADEMIC HIGHLIGHTS

CODING Data Structure and Programming: A+ | Algorithms: A+ | Discrete Mathematics: A

ML/DL/AI Machine Learning: A+ | Deep Learning for Human Language Processing: A+
Applied Deep Learning: A+ | Deep Learning for Computer Vision: A+

NLP METHODS Web Retrieval and Mining: A+ | Corpus Linguistics: A+ | Introduction to Linguistics (1)(2): A+

OTHER Computation in Data Science: A+ | Advanced Computer Architectures: A+

Computer Gaming Theory: A+ | High-Performance Big Data and Artificial Intelligence Systems: A

ACHIEVEMENTS

LEETCODE (COMPETITIVE CODING): HIGHEST RATING 2324 (TOP 0.53%)

KAGGLE (MACHINE LEARNING CONTEST): HIGHEST RANK 973 (TOP 1%)

STABLE DIFFUSION - IMAGE TO PROMPTS (TOP 5%)

- Reverse the Typical Direction of a Generative Text-to-Image Model