

# Chan-Jan (Jeff) Hsu

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[github](#) | [linkedin](#) | [leetcode](#) | [kaggle](#)

## RESEARCH INTERESTS

RESEARCH INTERESTS | 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

### MEDIA TEK RESEARCH RESEARCH SCIENTIST

2022-Present/ Taiwan

- Research Lead of [Generative Fusion Decoding](#), an algorithm for late fusion between any models
- Extended Pretraining of Language Models to support Traditional Chinese in a Research Group of 5+

[NEWS](#) | [GitHub](#) | [HuggingFace](#)

- Curated TMMLU, a Chinese version of the MMLU benchmark from authentic Taiwan examinations | [GitHub](#)
- Analyzed FishLeg's Performance on Language Benchmarks such as the SMC Bench in a Research Group of 6+
- Technical Advisor of "ClairAudience: Enhancing ASR Systems with Internal Language Model Adaptation"

### MACHINE LEARNING (EE5184) TEACHING ASSISTANT

2021Spring, 2022Spring / NTU

## RESEARCH PUBLICATIONS

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

2025 AAAI Under Review (Score: 7,7,4)

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

Under Review

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

### 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, HOLAM CHUNG, DONGJI GAO, PAOLA GARCIA, SHINJI WATANABE, ANN LEE, HUNG-YI LEE

**ZERO-SHOT DOMAIN-SENSITIVE SPEECH RECOGNITION WITH PROMPT-CONDITIONING FINE-TUNING** 2023 ASRU

FENG-TING LIAO, YUNG-CHIEH CHAN, YI-CHANG CHEN, CHAN-JAN HSU, DA-SHAN SHIU

**BREEZYVOICE: ADAPTING TTS FOR TAIWANESE MANDARIN**

**WITH ENHANCED POLYPHONE DISAMBIGUATION — CHALLENGES AND INSIGHTS**

NAACL 2025 Under Review

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

**PRUNING NEURAL NETWORKS USING FISHLEG ESTIMATION**

Under Review

RUI XIA, JAMIE MCGOWAN, JEZABEL R GARCIA, CHAN-JAN HSU, ET AL.

## ENTREPRENEURSHIP PUBLICATIONS

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**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

## SCHOLARSHIP

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**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

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**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 AACL 2022**

2022 AACL

## ACADEMIC HIGHLIGHTS

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<b>CODING</b>	<b>Data Structure and Programming: A+   Algorithms: A+   Discrete Mathematics: A</b>
<b>ML/DL/AI</b>	<b>Machine Learning: A+   Deep Learning for Human Language Processing: A+ Applied Deep Learning: A+   Deep Learning for Computer Vision: A+</b>
<b>NLP METHODS</b>	<b>Web Retrieval and Mining: A+   Corpus Linguistics: A+   Introduction to Linguistics (1)(2): A+</b>
<b>OTHER</b>	<b>Computation in Data Science: A+   Advanced Computer Architectures: A+ Computer Gaming Theory: A+   High-Performance Big Data and Artificial Intelligence Systems: A</b>

## ACHIEVEMENTS

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

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

[PETFINDER.MY - PAWPULARITY CONTEST](#) : 24<sup>th</sup>/3537 (TOP1%)

- Image Regression

[LUX AI](#) : 50<sup>th</sup>/1178 (TOP5%)

- Multi-variable Optimization Agent Design

[STABLE DIFFUSION - IMAGE TO PROMPTS](#) (TOP 5%)

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