

# HUNG-TING CHEN

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## RESEARCH INTEREST

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Natural Language Processing, Machine Learning. More specifically, I am interested in building systems that can understand language and respond to human queries accurately.

## EDUCATION

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**Ph.D. in Computer Science, New York University** *Aug. 2024 - Present*  
advised by **Prof. Eunsol Choi** (Aug. 2021 - Present)

**Ph.D. in Computer Science, University of Texas at Austin (UT Austin)** *Aug. 2023 - Aug. 2024*

**M.S. in Computer Science, University of Texas at Austin (UT Austin)** *Aug. 2021 - May 2023*

Overall GPA: 3.95/ 4.00

**B.S. in Electrical Engineering, National Taiwan University (NTU)** *Sept. 2016 - June 2020*

Overall GPA: 4.26/ 4.30 (No. 4/177)

## PUBLICATION

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- **Hung-Ting Chen**, Xiang Liu, Shauli Ravfogel, Eunsol Choi. “Beyond Single Embeddings: Capturing Diverse Targets with Multi-Query Retrieval” *Arxiv Preprint*
- **Hung-Ting Chen**, Eunsol Choi. “Open-World Evaluation for Retrieving Diverse Perspectives” *The 2025 Conference of the North American Chapter of the Association for Computational Linguistics (NAACL 2025)*
- **Hung-Ting Chen**, Fangyuan Xu\*, Shane A. Arora\*, Eunsol Choi. “Understanding Retrieval Augmentation for Long-Form Question Answering” *Conference on Language Modeling (COLM 2024)*
- Ge Gao\*, **Hung-Ting Chen**\*, Yoav Artzi, Eunsol Choi. “Continually Improving Extractive QA via Human Feedback” *The 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP 2023)*
- **Hung-Ting Chen**, Michael J.Q. Zhang, Eunsol Choi. “Rich Knowledge Sources Bring Complex Knowledge Conflicts: Recalibrating Models to Reflect Conflicting Evidence” *The 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP 2022)*
- Shane Arora\*, Marzena Karpinska\*, **Hung-Ting Chen**, Ipsita Bhattacharjee, Mohit Iyyer, Eunsol Choi. “CaLMQA: Exploring culturally specific long-form question answering across 23 languages” *The 63rd Annual Meeting of the Association for Computational Linguistics (ACL 2025)*
- **Hung-Ting Chen**\*, Yu-Chieh Chao\*, Ta-Hsuan Chao\*, Wei-Yun Ma. “Predict and Use Latent Patterns for Short-Text Conversation” *The Fourth Workshop on Reasoning and Learning for Human-Machine Dialogues at AAAI 2021*  
(\* indicates equal contribution)

## INDUSTRY RESEARCH EXPERIENCE

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**Salesforce AI Research** (Manager: Semih Yavuz)

*Improving Multi-hop Reasoning with Reasoning Chain Aggregation* *May 2024 - Aug. 2024*

- Designed reasoning chains that could help improve multi-hop reasoning of LLMs
- Developed self-consistency-inspired aggregation scheme on various types of reasoning chains

**Institute of Information Science, Academia Sinica** (Advisor: Prof. Wei-Yun Ma)

*Data-to-Text Generation System* [[Website Link](#)] *July 2020 - July 2021*

- Improved attribute mention accuracy by 17% with template-based transformer model
- Enhanced generation quality of the system via template optimization

*Dialogue Generation with Latent Pattern* [[Github Link](#)] [[Arxiv Link](#)] *June 2019 - June 2020*

- Incorporated information from a latent sentence or part-of-speech sequence predicted by model
- Obtained 36.42 BLEU-1 score on Weibo Benchmark Dataset

## RESEARCH EXPERIENCE

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### Computer Science Department, New York University (Advisor: Prof. Eunsol Choi)

*Iterative Retrieval System* Nov. 2024 - Present

- Devise architecture modifications and training pipelines for fine-tuning an iterative retriever
- Enhance comprehensiveness in retrieving a list of answers by 10%

*Improving Retrieval Diversity* Sept. 2024 - Sept. 2025

- Established the limitation of single-query vector retrievers on capturing diverse target distributions
- Developed a novel retriever that outputs multiple query embeddings autoregressively

### Computer Science Department, UT Austin (Advisor: Prof. Eunsol Choi)

*Evaluation of Retrieval Diversity* [\[Paper Link\]](#) Sept. 2023 - May 2024

- Constructed a benchmark for evaluating whether diverse perspectives are retrieved for subjective questions
- Showed the incapability of existing retrievers to retrieve diverse perspectives and proposed improvements

*Retrieval Augmentation in Long-Form QA* [\[Paper Link\]](#) Oct. 2022 - Sept. 2023

- Studied how three LMs (WebGPT, GPT-3.5, and Alpaca) use retrieved documents in-context
- Collected human annotations on whether answers are supported by the reference documents in RAG setting

*Continual Learning on Extractive QA* [\[Paper Link\]](#) July 2022 - May 2023

- Collect multiple batches of user feedback to a QA system with Amazon Mechanical Turk
- Improve accuracy of answers by 11% using bandit learning

*Knowledge Conflicts in Open-Retrieval QA* [\[Paper Link\]](#) Sept. 2021 - June 2022

- Investigated knowledge conflicts between different knowledge sources in open-retrieval QA setting
- Showed that models rarely hallucinate when provided with a high-quality retriever
- Trained a separate calibrator to refrain the model from answering questions with knowledge conflicts

### Speech Processing Laboratory, NTU (Advisor: Prof. Lin-Shan Lee & Hung-Yi Lee)

*Entity-Aware Automatic Text Summarization* [\[Github Link\]](#) Sept. 2018 - June 2020

- Implemented a transformer-based neural model with pointer-generator network to summarize text
- Incorporated named-entity information into summarization model with modified attention mechanism
- Introduced entity-aware embedding to enhance ROUGE-1, -2 scores by 5% and 8%

*Meta-Learning on Speech Recognition* Feb. 2020 - June 2020

- Investigated methods of meta-learning and implemented a paper in PyTorch [\[Github Link\]](#)
- Researched meta-learning methods on cross-accented automatic speech recognition

## AWARDS

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- 3 \* Academic Excellence Award (top 5% in department in a semester)
- 2nd Place in NTUEE Undergraduate Innovation Award
- 2nd Place in Small Data Training for Medical Images Contest (held by HTC Taiwan)

## SERVICES

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**Teaching Assistant (TA) for *Signals and Systems* (NTU)** Feb. 2019 - June 2019

- Graded assignments and two exams
- Answered questions from students during weekly office hours

**TA for *Deep Learning for Human Language Processing* (NTU)** Feb. 2020 - June 2020

- Designed and graded programming assignment on the topic Source Separation

**TA for *Natural Language Processing* (UT Austin)** Jan. 2022 - May 2022

- Graded assignments, final project and final exam
- Led a review session and answered questions from students during weekly office hours

**Reviewer**

- ICLR 2026, ARR (July 2025, Feb 2025, Oct 2024, Aug 2024, Feb 2024), EMNLP (2022, 2023), ACL 2023, AKBC 2022, KnowledgeLM @ ACL2024

**COURSE PROJECTS**

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**Improving VQA Model Robustness with Adversarial Inputs** [\[Report Link\]](#) Jan. 2022 - May 2022

- Augmented the training set with adversarial inputs using paraphrase generation and adversarial attack
- Improved accuracy of various VQA backbone models on VQA-CP test set by 4-9%

**Neural-Based Medical Image Analysis – Disease Detection** [\[Github Link\]](#) Dec. 2018 - Jan. 2019

- Developed a neural model identifying 14 diseases on NIH chest X-Ray dataset
- Led the team of three people, assigned tasks, and designed project structure
- Achieved 2nd place in “Small Data Training for Medical Images Contest”

**Multi-Source Domain Adaptation on DomainNet** [\[Poster Link\]](#) May. 2019 - June. 2019

- Modified Adversarial Discriminative Domain Adaptation (ADDA) into FuzzyADDA
- Implemented Maximum Classifier Discrepancy (MCD) method
- Ranked 1st and 2nd in public and private leaderboards in Kaggle competition out of 20 teams

**TECHNICAL STRENGTHS**

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<b>Programming Languages</b>	C++, Python, Matlab
<b>Machine Learning</b>	PyTorch, Keras, Tensorflow, Google Cloud VM, Huggingface, OpenAI APIs
<b>Web Development</b>	HTML, Flask, Javascript, Firebase, Heroku
<b>Data Collection</b>	MTurk, Prolific
<b>Languages</b>	Mandarin (Native), English (Fluent, TOEFL iBT: 109)

Last updated: Nov 5, 2025