# JINGNONG QU

#### Seattle, WA

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#### **EDUCATION**

#### University of Washington

September 2024-Present

Ph.D. in Linguistics (Computational Track)

#### University of California, Los Angeles

September 2022-June 2024

M.S. in Computer Science

#### University of California, Los Angeles

August 2018-June 2022 Summa Cum Laude

B.S. in Computer Science

Summa Cum Laude

B.A. in Linguistics & Computer Science

#### **PUBLICATION**

- Jingnong Qu, Liunian Harold Li, Jieyu Zhao, Sunipa Dev, and Kai-Wei Chang. 2022. Disinfomeme: A multimodal dataset for detecting meme intentionally spreading out disinformation (arXiv preprint)
- Haoyi Qiu, Kung-Hsiang Huang\*, Jingnong Qu\*, and Nanyun Peng. 2024. AMRFact: Enhancing summarization factuality evaluation with AMR-driven negative samples generation

#### RESEARCH EXPERIENCE

UCLA NLP

Researcher

April 2021-Present

Group led by Professor Kai-Wei Chang

- Conducted research in classification of multi-modal internet memes using state-of-the-art NLP models
- Devised data augmentation methods for summary evaluation using Abstract Meaning Representation (AMR)
- Utilized platforms including Google Cloud, AWS, and Amazon MTurk

#### **EMPLOYMENT**

#### Reader

• Introduction to Machine Learning (COM SCI M146)

Fall 2021

• Natural Language Processing (COM SCI 188)

Winter 2022, Fall 2022

#### Teaching Assistatnt

• Introduction to Study of Language (LING 1)

Spring 2022

• Introduction to Linguistic Analysis (LING 20)

Winter 2024

• Semantics I (LING 120C)

Spring 2024

#### RELEVANT COURSEWORK

Semantic Theory, Syntactic Theory, Mathematical Structures in Language, Pragmatic Theory, General Phonetics, Phonology, Natural Language Processing (Lecture and Seminar), Natural Language Generation (Seminar), Automated Reasoning: Theory and Applications

#### SKILLS

| Programming languages |
|-----------------------|
| Natural languages     |
| Tools                 |

Python, C/C++, Java, Javascript, MariaDB, Haskell, OCaml, Lisp Mandarin (Native), English (Fluent), German (Elementary), French (Elementary)

PyTorch, Pandas, Git, Docker, AWS, Google Cloud, MTurk, LATEX, Praat

<sup>\*</sup>Equal contribution

#### A Study of the Semantics and Syntax of Unconditionals

June 2024

- Uncovered new data of Mandarin unconditionals
- Extended previous syntactic and semantic analysis using Hamblin semantics
- Proposed an analysis in dynamic semantics for unconditionals

# AMRFact: Enhancing Summarization Factuality Evaluation with AMR-Driven Negative Samples Generation June 2024

- Proposed a new summarization factuality evaluation metric that achieved state-of-the-art performance.
- Devised and implemented schemes to operate on AMR to create semantically contradictory sentences.
- Provided more explainability for the decision of the machine learning model.

## DisinfoMeme: A Dataset for Detecting Memes Intentionally Spreading Out Disinformation June 2022

- Constructed a dataset from memes Reddit posts
- Utilized Amazon Mechanical Turk for annotation
- Tested the dataset on popular vision-language machine learning models
- Composed a conference paper to report the results and findings from the dataset

# A Study of the Sounds of New Shanghainese

August 2021

- Investigated the phonetic properties of new Shanghainese by working with a native speaker of Shanghainess
- Analyzed the waveforms and spectrograms of the words produced by the speaker using Praat
- Inferred the reasons of the differences between the speaker's dialect and existing literature
- Composed a paper to report the results and findings

#### Tense Anchoring in Chinese: A Literature Review

August 2021

- Reviewed tense anchoring, a phenomenon on the interface of syntax and semantics, in Mandarin
- Raised a problem from a corner case with data from a native speaker of Mandarin
- Proposed a hypothesis that accounts for the corner case
- Composed a paper to report the results and findings

#### Painting to Prose: Text Generation from Images

March 2021

- Built a program that generates a piece of literature from a visual art piece
- Worked with a partner to generate painting caption using Conceptual Captions by Google
- Utilized skip-thought vectors to generate a paragraph from painting captions

### Naive Parsing of Context Free Grammars

October 2020

- Implemented a parser generator for context free grammars in OCaml
- Practiced functional programming with an intellectually challenging problem
- Laid foundation for functional programming computational linguistics projects