

Yu (Hope) Hou

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EDUCATION

University of Maryland, College Park

Ph.D. in Computer Science

Aug. 2023 –

College Park, MD

University of Southern California

M.S. in Computer Science

Jan. 2020 – Dec. 2021

Los Angeles, CA

Beijing University of Posts and Telecommunications

B.S. in Telecommunications Engineering with Management

Sep. 2015 – June 2019

Beijing, China

- Joint program with **Queen Mary, University of London**; graduated with **First Class** honours.
- Awarded **National Scholarship** in 2016, 2017.

PUBLICATIONS

Jiao Sun*, **Yu Hou***, Jiin Kim and Nanyun Peng (2023). Are Akpans Trick or Treat: Unveiling Helpful Biases in Assistant Systems. (*under submission*)

Te-Lin Wu*, Zi-Yi Dou*, Qingyuan Hu*, **Yu Hou**, Nischal Reddy Chandra, Marjorie Freedman, Ralph M. Weischedel and Nanyun Peng (2023). ACQUIRED: A Dataset for Answering Counterfactual Questions In Real-Life Videos. *EMNLP, 2023*.

Sunipa Dev*, Emily Sheng*, Jieyu Zhao*, Aubrie Amstutz*, Jiao Sun, **Yu Hou**, Mattie Sanseverino, Jiin Kim, Akihiro Nishi, Nanyun Peng and Kai-Wei Chang (2022). On Measures of Biases and Harms in NLP. *Findings of ACL, 2022*.

Shikhar Singh*, Nuan Wen*, **Yu Hou**, Pegah Alipoormolabashi, Te-lin Wu, Xuezhe Ma and Nanyun Peng (2021). COM2SENSE: A Commonsense Reasoning Benchmark with Complementary Sentences. *Findings of ACL, 2021*.

Qingjian Lin, **Yu Hou** and Ming Li (2020). Self-Attentive Similarity Measurement Strategies in Speaker Diarization. *INTERSPEECH, 2020*.

RESEARCH EXPERIENCE

University of Maryland, College Park

Graduate Researcher | CLIP Lab (advised by Prof. Rachel Rudinger and Prof. Hal Daumé III)

Aug. 2023 –

College Park, MD

- **Research on Positive Reframing:** Enhanced the use of LLMs by considering human goal sets and cognitive reappraisal strategies from psychology theories to generate positive thoughts for a situation from various angles.

University of California, Los Angeles

Student Researcher | PLUS Lab (advised by Prof. Nanyun Peng)

Feb. 2020 – Jan. 2022

Los Angeles, CA

- **Research on Dialogue Fairness:** Defined helpfulness to evaluate geographical bias of goal-oriented dialogues.
- **Commonsense Dataset Collection:** Collected a commonsense reasoning benchmark with complementary sentences in physical, social and temporal domains to investigate model capabilities.

Duke Kunshan University

Research Intern | SMIIP Lab (advised by Prof. Ming Li)

Sept. 2019 – Dec. 2019

Kunshan, China

- **Research on Speaker Diarization:** Investigated on speaker embedding similarity measurement, spectral clustering; conducted experiments on Transformer variations with augmented data from Poisson Process.

Tsinghua University

Part-time Intern (advised by Dr. Bin Cao) | KEG (led by Prof. Jie Tang)

Nov. 2017 – Aug. 2018

Beijing, China

- **Chinese AI and Law challenge 2018 Competition:** Experimented on TextCNN; deployed model for demo.
- **Stanford Question Answering Dataset (SQuAD):** Experimented on embedding layer handling via different mechanisms; completed the Chinese QA web app demo.

WORK EXPERIENCE

Flourish Science Inc.

May 2023 – Aug. 2023

Software Engineer | Well-being and Mental Health Startup

Mountain View, CA

- **Flourish app prototype:** Worked with co-founders to design and build a science-based web app in React to help users discover, practice, and develop sustainable happiness and well-being habits.

Google LLC

Apr. 2022 – Jan. 2023

Software Engineer | Internationalization NLP Localization Team

Mountain View, CA

- **Fluency Task Management:** Worked on tooling support to help speed up Assistant data collection process. Utilized Angular and Java to develop a web app to manage localization related tasks.

Amazon.com, Inc.

May. 2021 – Aug. 2021

Software Dev Engineer Intern | AWS EC2 PrivateLink DataPlane Team

Seattle, WA

- **Knowledge-based PrivateLink Database:** Built cloud network info querying service via AWS services in Python using graph databases from scratch (i.e. from design, implementation and test to deployment).

SKILLS

Languages: Python, Java, TypeScript/JavaScript, C/C++; **Tools:** Unix/Linux, Git, LaTeX;

Packages: PyTorch, NumPy, Pandas, Flask, PySpark, etc.

Platform: MongoDB, Amazon MTurk, Angular, React, AWS service, etc.

TEACHING

CMSC 723: Natural Language Processing

Fall 2023

Teaching Assistant

University of Maryland, College Park

CSCI 455x: Introduction to Programming Systems Design

Fall 2021, Spring 2021

Teaching Assistant

University of Southern California

STATS 102: Introduction to Data Science

Fall 2019 Session 2

Teaching Assistant

Duke Kuanshan University