

# Chengyu Huang

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## EDUCATION

**National University of Singapore**

Aug 2019 - May 2023

**Bachelor of Computing, Major in Computer Science**

- Second major: Mathematics
- Cumulative Average Point: 4.98/5.0; Rank:  $\leq 2/759$ ; Most Outstanding Graduate

**Swiss Federal Institute of Technology in Zurich**

Feb 2022 - July 2022

- Exchanged at ETH Zurich and took the courses in Machine Learning, 3D Vision, Natural Language Processing, Convex Optimization, German A1.1, and German A1.2
- Represented NUS as exchange ambassador and promoted NUS on campus booth event

## RESEARCH EXPERIENCE

**Research Intern, H2Lab, University of Washington**

May 2023 - Present

- Investigated Reinforcement Learning from Human Feedback for response generation with citations, a direction that aims at enhancing the truthfulness of language models

**Research Assistant, School of Computing, NUS**

May 2023 - Present

- Designed and implemented an NLP based credential-taking intention and text brand detector for HTML webpages, which increases recall and precision of an existing phishing webpage detector

**Research Intern, NExT++ Research Center, NUS**

Oct 2021 - May 2023

- Adapted a model based on GAN and LSTM for response generation in a multi-party context with the help of relational thinking, which was shown to be effective without topic or thread labels
- Designed a global clustering model for conversation disentanglement with contrastive learning and K means, and the model was shown to be more effective than traditional 2-stage models
- Proposed reordering techniques for conversation disentanglement with the help of curriculum learning, which can increase the generalizability of existing models on different dialogues
- Constructed a multi-party response generation pipeline with conversation disentanglement, which can generate accurate and diverse responses in a multi-party conversation

## PUBLICATIONS

### Conference papers

- Chengyu Huang, Zheng Zhang, Hao Fei, and Lizi Liao. "Conversation Disentanglement with Bi-Level Contrastive Learning." *Proceedings of the Findings of the Association for Computational Linguistics: EMNLP 2022*. [\[paper\]](#)
- Chengyu Huang, Zeqiu Wu, Wenya Wang, Yushi Hu, and Hannaneh Hajishirzi. "Helping Large Language Models Generate Better Citations with Fine-Grained Rewards." *The 62nd Annual Meeting of the Association for Computational Linguistics*, submitted. [\[paper\]](#)
- Yuexin Li, Chengyu Huang, and Bryan Hooi. "Unleashing the Power of Reference-Based Phishing Detectors with Multimodal Knowledge Graphs." *The 33rd USENIX Security Symposium*, submitted. [\[paper\]](#)
- Suyu Liu, Chengyu Huang, Libo Qin, Hao Fei, Tat-Seng Chua, and Lizi Liao. "Disentangle Multi-party Conversations as Reordering with Curriculum." *The Annual Meeting of the Association for Computational Linguistics*, submitted. [\[paper\]](#)
- Lizi Liao, Chengyu Huang, and Tat-Seng Chua. "Relational Thinking-based Response Generation." *The Annual Meeting of the Association for Computational Linguistics*, submitted. [\[paper\]](#)

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- Tianhao Dai, Lizi Liao, and Chengyu Huang. "Multi-party Response Generation with Relation Disentanglement." Work in progress. [\[paper\]](#)

## ACADEMIC SERVICE

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**Reviewer**, Dialogue and Interactive Systems track, EMNLP July 2022 - Aug 2022

## HONORS AND AWARDS

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IMDA Excellence in Computing Prize [\[certificate\]](#) 5 June 2023

- Most Outstanding Graduate in the Bachelor of Computing programme
- Dean's List, School of Computing Jan - May 2023; Jan - May 2021; Aug - Dec 2020  
Senior Middle 2 Scholarship Aug 2019 - May 2023

## TEACHING EXPERIENCE

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**Teaching Assistant**, School of Computing, NUS

- Design and Analysis of Algorithms Aug 2021 - Nov 2021
- Computer Organization Jan 2021 - Apr 2021
- Discrete Structures Aug 2020 - Nov 2021
- Programming Methodology Aug 2020 - Nov 2020

## PROFESSIONAL EXPERIENCE

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**Backend Engineer Intern**, Global Payment, ByteDance Sep 2022 - Jan 2023

- Developed a storage platform with Go and MongoDB that maintains bank records, which increased the payment transaction success rate by a significant percentage

**Contributor and Mentor**, RepoSense [\[repository\]](#) Jan 2021 - May 2023

- Added new features such as highlighting and binary format support with Vue.js, Pug, and css, which enhanced the user interface of RepoSense, a contribution analysis tool of Git repositories
- Maintained the project, reviewed close to 100 pull requests, and made 5 product releases, which ensured it runs smoothly with 10 active developers and more than 1000 active users

**Backend Engineer Intern**, Global Payment, ByteDance May 2021 - Aug 2021

- Constructed an internal bot that monitors the transaction metrics from a TSDB and sends alerts to the engineers, alleviating the on-call team's burden and accelerating the error handling process

**Developer Intern**, Mobile Application, U Wave May 2020 - Aug 2020

- Developed user interfaces for services such as module calendar and bus timing of U Wave with Flutter and Dart, which became new functionalities of the mobile application
- Collaborated in its campus promotion initiative, and invited NUS students to join its existing network of more than 10000 users on campus

## ADDITIONAL INFORMATION

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- **Skills:** Java, Python, C programming, PostgreSQL, Go, html, and css
  - **Languages:** Chinese and English: Proficient; German: A1.2
  - **Interests:** Basketball; Guitar; Drawing; Movies