# Huang Chengyu

+65 86943640 • chengyu@comp.nus.edu.sg • HCY123902 (GitHub)

## 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

**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

## PROFESSIONAL EXPERIENCE

**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
- Wrote scripts in Go to scan user database, and corrected more than 10000 inconsistent payment records between original and sharded tables, which enhanced the CRUD operation stability

**Contributor and Mentor,** RepoSense [repository]                          Jan 2021 - Present
- 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
- Implemented payment channels for Airwallex and GCash using RPC framework, which provided 2 new payment options for company products such as TouTiao
- 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 mobile pages 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

## HONORS AND AWARDS

IMDA Excellence in Computing Prize [certificate]                          5 June 2023
(Most Outstanding Graduate in Bachelor of Computing)
Dean's List, School of Computing          Jan - May 2023; Jan - May 2021; Aug - Dec 2020
Senior Middle 2 Scholarship                                              Aug 2019 - May 2023

## RESEARCH EXPERIENCE

**Research Intern,** H2Lab, University of Washington                       May 2023 - Present
- Investigated fine-grained Reinforcement Learning from Human Feedback for response generation with citation, a direction that aims at enhancing the truthfulness of large language models

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**Research Assistant,** NUS-NCS Joint Laboratory for Cyber Security, NUS    May 2023 - Present
- Designed and implemented an NLP based credential-taking intention detector for HTML webpages, which reduced the false positive rate of the 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 multi-party setting

**Researcher,** Undergraduate Research Opportunity, NUS    May 2021 - Oct 2021
- Investigated the existing fact checking tools, which revealed the need for the judgments made by these tools to be more explainable
- Implemented a fact checking system that can generate both veracity prediction and the corresponding explanation when given a claim

## 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]
- Suyu Liu, Chengyu Huang, Libo Qin, Hao Fei, Tat-Seng Chua, and Lizi Liao. "Disentangle Multi-party Conversations as Reordering with Curriculum." *The 61st Annual Meeting of the Association for Computational Linguistics,* submitted. [paper]

## ACADEMIC SERVICE

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

## TEACHING EXPERIENCE

**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

## ADDITIONAL INFORMATION

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