

# Chow Siew Yeng

LANGUAGE ENGINEER · COMPUTATIONAL LINGUIST

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## Education

### Nanyang Technological University

M.A. (RESEARCH) IN COMPUTATIONAL LINGUISTICS

Singapore

Jan. 2020 - Dec. 2021

- GPA: 5.00/5.00
- LREC 2022 publication: Singlish Where Got Rules One?

### Technische Universität Dresden

GERMAN SUMMER COURSE

Dresden, Germany (online)

Jun 2021

- Scholarship recipient under the German Academic Exchange Services (DAAD).

### Nanyang Technological University

B.A. IN LINGUISTICS AND MULTILINGUAL STUDIES

Singapore

Aug. 2015 - Jun. 2019

- Graduated with Honours (Highest Distinction)
- Minor: Mathematics

### Kansai Gaidai

ASIAN STUDIES PROGRAM

Osaka, Japan

Jan. 2017 - Jun. 2017

- Educated on the appreciation of Japanese art forms and lifestyle.
- Analysed justice systems with focus on America and Japan.

## Skills

**NLP** NLTK, Regex, Deep Learning models

**Programming** Python, React Native, SQL, LaTeX

**Version control** Git

## Languages

**Proficient** Cantonese (speaking), English, Mandarin

**Intermediate** German

**Basic** Japanese

## Experience

### Apple

Singapore

AI/ML NATURAL LANGUAGE ENGINEER (CONTRACT)

Mar. 2022 - ongoing

- Collaborated with global teams to improve Siri's proficiency in Singapore English and localised user experience.
- Worked as a subject matter expert, creating guidelines that drive locale-specific phonetic transcription for ASR, reducing speech recognition error rates in the region.
- Analysed speech model data to identify utterance misrecognitions and engineer data-driven augmentations to the model, raising end-to-end performance.
- Implemented Docker in a bash script to do continuous testing and ensure quality of training dataset used for training new models.

### A\*STAR (Institute of Higher Performance Computing and Institute of Infocomm Research)

Singapore

INTERN

Jan. 2021 - Mar. 2021

- Trained CNN and MLP models to map facial landmarks to 7 different emotions to enhance online learning in the current context.
- Researched on Discourse Representation Structure and evaluation benchmarks in Natural Language Inference (NLI), offering linguistic expertise to a query answering project.

### Nanyang Technological University

Singapore

TEACHING ASSISTANT

Aug. 2020 - Dec. 2020

- Delivered weekly tutorials on semantics and pragmatics for over 50 undergraduates.
- Strategised lesson flow, guided discussion and promoted understanding of linguistic concepts.

### Nanyang Technological University

Singapore

RESEARCH ASSISTANT

Dec. 2017 - Mar. 2021

- Analysed data consisting mostly of grammatically incorrect sentences to gather data regarding English grammar and improve a treebanking software for parsing texts.
- Supervised adjudication between various pairs of annotators to facilitate inter-annotator agreement and quality of gold data.

## Worldwide Opportunities on Organic Farms

Galway, Ireland

FARM VOLUNTEER

Aug 2019

- Learnt about sustainable agriculture and living.
- Handled daily farm operations including harvesting and planting.

## Lions Befrienders

Singapore

RESEARCH INTERN

May, 2018 - Jul 2018

- Co-developed and executed a health-related project of encouraging 20 socially isolated elderly persons to pursue an active lifestyle.
- Designed, translated, and carried out Mandarin/English questionnaires tracking activity and motivation of the elderly.
- Conducted literature review and research on befriending mechanisms to improve volunteer training.

## Extracurricular Activity

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### NTU Welfare Services Club

Singapore

TUTOR

Sep. 2018 - Apr. 2021

- Mentored ITE students in mathematics weekly.

### NTU GEM Club

Singapore

CLUB AMBASSADOR

Aug. 2016 - May. 2019

- Welcomed and guided exchange students around Singapore.
- Buddy to a group of 12 exchange students and arranged group outings to foster bonding and help them feel more comfortable away from home.

### NTU Hall 1

Singapore

MAIN COMMITTEE MEMBER AND INTER-HALL REPRESENTATIVE

Aug. 2015 - Jan. 2017

- Represented hall in Inter-Hall Cheer Competition and Inter-Hall Recreational Games.
- Planned and executed an annual 3-day camp for over 50 underprivileged children over 4 months of preparation.

## Projects

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### Nanyang Technological University

Singapore

A COMPUTATIONAL GRAMMAR OF SINGLISH USING HPSG

Jan. 2020 - Dec. 2021

- Developed a formal grammar of Singlish that can generate syntactic trees and DMRS from input sentences.
- Increased accuracy in parsing Singlish sentences from 46.7% to 70.0%.
- Presented findings at international DELPH-IN summits and LREC 2022.

### TiMi Studio and Tencent

International (online)

GREEN GAME JAM

Jul. 2021 - Aug 2021

- Top 16 out of 200 teams globally.
- Created an original game to the theme of environmental conservation.

### Defence Science and Technology Agency (DSTA)

Singapore

BRAINHACK 2021

Jun 2021

- Top 8 of over 40 participating university teams.
- Implemented neural network and used filtered data, optimising model for Computer Vision challenge.

## Courses

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2022	<b>Mathematics for Machine Learning Specialization</b> , Coursera
2022	<b>Natural Language Processing with Probabilistic Models</b> , DeepLearning.AI
2022	<b>Natural Language Processing with Classification and Vector Spaces</b> , DeepLearning.AI
2021	<b>11th Lisbon Machine Learning School</b> , Instituto Superior Técnico