

Chow Siew Yeng

LANGUAGE ENGINEER · COMPUTATIONAL LINGUIST

✉ siewyeng001@e.ntu.edu.sg | 🏠 siewyeng.github.io | 🌐 siewyeng | 📄 Chow Siew Yeng

Experience

AI Singapore

Singapore

AI APPRENTICE

Aug. 2023 - May 2024

- Completed intensive course involving topics such as time-series, Neural Networks and MLOps.
- Developed advanced LLM agents capable of conversing through Time Weighted Memory Retrieval, showcasing innovation in AI conversation systems.
- Successfully deployed these agents on Streamlit, enabling real-time user interactions and enhancing user experience.
- Utilized prompt engineering techniques to steer LLMs towards generating targeted outputs, ensuring alignment with project goals.
- Currently working on an Inverse Text Normalization project within an agile environment, collaborating with the principal investigator to build the an AI solution for the product sponsor.

Transperfect

Singapore

LANGUAGE ENGINEER

Mar. 2022 - Aug. 2023

- Collaborated with global teams to improve digital assistant's proficiency in Singapore English and localised user experience.
- Acted 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.
- Leveraged Docker for continuous testing, ensuring high quality of training dataset used for new model development.
- Managed a team of 3 data curators, fostering their skills in accurate transcription and data output.

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 distinct emotions, enhancing online learning tools in the COVID 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 comprehensive conceptual support in semantics and pragmatics to over 50 undergraduates, enhancing their academic understanding.
- Provided consultations and delivered weekly tutorials on concepts such as logical grammar, set theory and non-classical logics.
- Strategised lesson flow, guided discussion, graded group assignments and promoted understanding of linguistic concepts.

Nanyang Technological University

Singapore

RESEARCH ASSISTANT

Dec. 2017 - Mar. 2021

- Conducted in-depth analysis of over 3000 sentences, primarily focusing on grammatically incorrect sentences, to refine treebanking software for text parsing.
- Supervised adjudication between various pairs of annotators to facilitate inter-annotator agreement and quality of gold data.

Worldwide Opportunities on Organic Farms

Galway, Ireland

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-centric project, promoting active lifestyles among 20 socially isolated elderly individuals.
- 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.

Skills

NLP	NLTK, Regex, Deep Learning with MLP and CNN
Programming	Python, React Native, SQL, LaTeX, Bash
Languages	English, Cantonese, Mandarin, German (B2), Japanese (basic)

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?.
- Built a rule-based syntactic parser for Singlish.
- Recipient of Research Scholarship.

Technische Universität Dresden

GERMAN SUMMER COURSE

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.
- Recipient of College Scholarship.

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.

Projects

Nanyang Technological University

A COMPUTATIONAL GRAMMAR OF SINGLISH USING HPSG

Singapore

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 and international DELPH-IN summits and LREC 2022.

TiMi Studio and Tencent

GREEN GAME JAM

International (online)

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)

BRAINHACK

Singapore

Jun 2021

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

Extracurricular Activity

NTU Welfare Services Club

MATHS TUTOR

Singapore

Sep. 2018 - Apr. 2021

- Mentored ITE students in mathematics weekly.

NTU GEM Club

CLUB AMBASSADOR

Singapore

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

MAIN COMMITTEE MEMBER AND INTER-HALL REPRESENTATIVE

Singapore

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.

Courses

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