

## EDUCATION

2019–present

### PhD in Computer Science

University of Cambridge

#### Research areas:

- Natural language generation
- Chatbots & dialogue systems

#### Working title:

Building adaptive chatbots for second language learning

- Supervised by Prof. Paula Buttery (NLIP Group)
- Funded by Cambridge University Press & Assessment via the ALTA Institute

2017–2018

### MPhil in Advanced Computer Science

University of Cambridge

2014–2017

### BA in Linguistics (1st class)

University of Cambridge

## EMPLOYMENT

2023

### Google — Research Intern

- Investigated self-correction and reasoning as part of Google Research
- Published a [paper](#) (preprint, under review), a [blogpost](#) on the Google Research blog, and a [dataset](#)

2022

### GitHub — Summer Research Engineer

- Part of the Copilot team at GitHub Next
- Conducted research into evaluation methods of neural code generation

2016–2019

### Africa's Voices Foundation — Data Scientist

- Built a machine learning pipeline for sentiment analysis in Sheng, a low-resource Kenyan language
- Created a user interface to crowdsource and visualise data
- Blog posts: [1](#), [2](#)

## SKILLS

### Machine learning & NLP

Python: PyTorch, scikit-learn, SpaCy, Huggingface Transformers, NLTK, pandas, ParlAI, Anaconda

### Web development

JavaScript: TypeScript, React, D3, jQuery  
Python: Flask

### Software engineering

Git / GitHub, AWS, Google Cloud Compute Engine

### Languages

English, Cantonese, Mandarin (*basic*)

## RESEARCH

### LLMs cannot find reasoning errors, but can correct them!

Tyen, G., Mansoor, H., Chen, P., Mak, T., & Cărbune, V.

arXiv preprint

Under review @ ACL 2024 (ARR)  
Scores: 4/4/3.5

### Towards an open-domain chatbot for language practice

Tyen, G., Brenchley, M., Caines, A., & Buttery, P.

Paper

17<sup>th</sup> BEA Workshop @ NAACL 2022

### A category theory framework for sense systems

Strohmaier, D. & Tyen, G. (equal contribution)

Paper

Globalex Workshop on Linked Lexicography @ LREC 2022

### An ensemble of feature-based and neural models for lexical complexity prediction

Yuan, Z., Tyen, G., & Strohmaier, D.

Paper

15<sup>th</sup> SemEval Workshop @ ACL 2021

### Building chatbots for second language learning

Tyen, G.

Talk

Education Research Showcase @ CST Cambridge University

### Automatic textual analysis of a low resource mixed language

Tyen, G., Kerr, E. J., Lopes, C., & Mirzoyants, A.

Talk

Language in Africa SIG @ BAAL 2018