

# Potsawee Manakul

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## EDUCATION

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### University of Cambridge

*Ph.D. Candidate in Information Engineering (i.e. Computer Science)*

Cambridge, UK

*Oct. 2019 – Present*

- Work in the Speech Group under the supervision of [Prof. Mark Gales](#)
- Research Focus: Automatic Summarisation and Summary Assessment, NLP in language learning
- Recipient of the Cambridge International & St John's College Scholarship

### University of Cambridge

*B.A. and M.Eng. in Engineering specialising in Information and Computer Engineering*

Cambridge, UK

*Oct. 2015 – June 2019*

- **1st percentile** in the first-year undergraduate examination
- **3rd percentile** in the second-year undergraduate examination
- **4th percentile** in the third-year undergraduate examination
- Obtained Honour with Distinction in the fourth-year (Masters Program)

## WORK EXPERIENCE

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### Speech Group, Machine Intelligence Lab, Engineering Department

*Summer Research Intern*

June 2018 – Aug. 2018

*Cambridge, UK*

- Worked on deep learning approach to improve grammatical error detection systems for spoken language domain
- Worked on statistical method to generate artificial data for training grammatical error detection systems
- Co-authored a paper accepted at ICASSP 2019

### MediaTek

*Software Engineering Intern*

June 2017 – Sep. 2017

*Cambourne, UK*

- Developed GUI tools for a 5G simulator using C#/.NET framework and SQLite database
- Designed an algorithm to detect a critical path in hard real time system
- Developed an IoT tool based on MTK LinkIt Smart 7688 to monitor a kitchen

### Healthera

*Software Engineering Intern*

June 2016 – Aug. 2016

*Cambridge, UK*

- Designed and worked on the front-end part of company's website

## PUBLICATIONS

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1. **Manakul, P.**, & Gales, M. J. (2020). "CUED-SPEECH at TREC 2020 Podcast Summarisation Track" In *Text REtrieval Conference (TREC) 2020*. [**Won 1st place in the summarisation task**] (out of 8 teams, 22 systems)
2. **Manakul, P.**, Gales, M. J., & Wang, L. (2020). "Abstractive Spoken Document Summarization Using Hierarchical Model with Multi-Stage Attention Diversity Optimization." In *Proc. Interspeech 2020*, 4248-4252. [**Best Student Paper Finalist**]
3. Lu, Y., Gales, M. J., Knill, K., **Manakul, P.**, & Wang, Y. (2019). "Disfluency Detection for Spoken Learner English." In *SLaTE 2019* pp. 74-78.
4. Lu, Y., Gales, M. J., Knill, K. M., **Manakul, P.**, Wang, L., & Wang, Y. (2019). "Impact of ASR Performance on Spoken Grammatical Error Detection." In *Proc. Interspeech 2019*, pp. 1876-1880.
5. Knill, K. M., Gales, M. J., **Manakul, P.**, & Caines, A. P. (2019). "Automatic grammatical error detection of non-native spoken learner English." In *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pp. 8127-8131.

## TEACHING EXPERIENCE

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### Undergraduate Teaching (Supervision at Cambridge)

- 3F7 Information Theory and Coding (3rd-year undergraduate)
- 2P7 Vector Calculus, Linear Algebra, Probability (2nd-year undergraduate)

### Lab Demonstration

- MLMI13 Introduction to NLP
- Part 1A Engineering Lego

## HONOURS & AWARDS

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### Scholarships and Grants

- Cambridge International & St John's College Scholarship (Full funding for PhD) — 2019
- 4 × United Steel Companies Scholarship (Academic Prize, St John's College) — 2019, 2018, 2017, 2016
- 4 × Wright Prize (Academic Prize, St John's College) — 2019, 2018, 2017, 2016
- UARP (Undergraduate Academic Research Project, St John's College) — 2018
- Winifred Georgina Holgate Pollard Memorial Prize (University Prize) — 2017
- Earle Prize (St John's College Year Group Prize) — 2017
- BP 1st Year Prize (sponsored by BP, based on the 1st year exam) — 2016
- Gaskell Prize (St John's College Year Group Prize) — 2016

### Awards

- Silver Medal from 45th International Physics Olympiad (IPhO) in Kazakhstan — 2015
- Gold Medal from 15th Asian Physics Olympiad (APhO) at National University of Singapore — 2015
- Bronze Medal from 14th Asian Physics Olympiad (APhO) in Bogor, Indonesia — 2014

### Others

- Won **1st place in the Spotify Podcast Summarisation Challenge** in the Text REtrieval Conference (TREC) 2020 Podcasts Track — November 2020

## TECHNICAL SKILLS

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**Programming Language:** Python, Matlab, C++

**Machine Learning Tools:** PyTorch, Tensorflow