# Potsawee Manakul

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## **EDUCATION**

## University of Cambridge

Cambridge, UK

Ph.D. Candidate in Information Engineering (Computer Science)

Oct 2019 - Present

- Work in the Machine Intelligence Lab under the supervision of Prof. Mark Gales
- Research Focus: Automatic Summarization and Summary Assessment, Machine Learning for NLP
- Recipient of the Cambridge International & St John's College Scholarship (Full funding for PhD)

#### University of Cambridge

Cambridge, UK

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

Oct 2015 - Jun 2019

- top 1% in the first-year undergraduate examination
- top 3% in the second-year undergraduate examination
- top 4% in the third-year undergraduate examination
- Obtained Honour with Distinction in the fourth-year (Masters Program)

#### WORK EXPERIENCE

## Machine Intelligence Lab, Engineering Department

Cambridge, UK

Undergraduate Research Intern

Jun 2018 - Aug 2018

- Developed deep learning models for grammatical error detection
- Worked on data augmentation methods to improve grammatical error detection systems
- Co-authored a paper accepted at ICASSP 2019

MediaTek Cambourne, UK

Software Engineering Intern

Jun 2017 - Sep 2017

- 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 Cambridge, UK

Software Engineering Intern

Jun 2016 - Aug 2016

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

# Publications

- 1. P. Manakul and M. J. Gales, "Long-Span Summarization via Local Attention and Content Selection", in ACL 2021.
- 2. P. Manakul and M. J. Gales, "CUED\_SPEECH at TREC 2020 Podcast Summarisation Track", in Text REtrieval Conference (TREC) 2020.

[Won 1st place in the Spotify Podcast Summarisation Track, out of 8 teams & 22 systems]

- 3. P. Manakul, M. J. Gales, L. Wang, "Abstractive Spoken Document Summarization Using Hierarchical Model with Multi-Stage Attention Diversity Optimization", in Interspeech 2020. [Best Student Paper Finalist]
- 4. Y. Lu, M. J. Gales, K. M. Knill, **P. Manakul**, Y. Wang, "Disfluency Detection for Spoken Learner English", in SLaTE Workshop 2019.
- 5. Y. Lu, M. J. Gales, K. M. Knill, **P. Manakul**, L. Wang, Y. Wang, "Impact of ASR Performance on Spoken Grammatical Error Detection", in **Interspeech** 2019.
- K. M. Knill, M. J. Gales, P. Manakul, A. Caines, "Automatic grammatical error detection of non-native spoken learner English", in ICASSP 2019.

### TEACHING EXPERIENCE

## Undergraduate Teaching (Supervision at Cambridge)

- Third-year Undergraduate: 3F7 Information Theory and Coding
- Second-year Undergraduate: 2P7 Vector Calculus, Linear Algebra, Probability

#### Lab Demonstration

- MPhil in Machine Learning and Machine Intelligence: MLMI13 Introduction to NLP
- First-year Undergraduate: Engineering Lego Lab

## Honours & Awards

#### Scholarships and Grants

- Cambridge International & St John's College Scholarship (Full funding for PhD) 2019
- United Steel Companies Scholarship (Academic Prize, St John's College) 2019, 2018, 2017, 2016
- 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 Astana, 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 Summarization Challenge in the Text REtrieval Conference (TREC) 2020 Podcasts Track — 2020

## TECHNICAL SKILLS

Programming Language: Python, Matlab, C++ Machine Learning Tools: PyTorch, TensorFlow

Updated: July 2021