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

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, "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)]

2. **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**]

3. Y. Lu, M. J. Gales, K. M. Knill, **P. Manakul**, Y. Wang, "Disfluency Detection for Spoken Learner English", in SLaTE Workshop 2019.

4. 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.

5. 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