

# POTSAWEE MANAKUL

[pm574@cam.ac.uk](mailto:pm574@cam.ac.uk) | [potsawee.github.io](https://potsawee.github.io) | [github.com/potsawee](https://github.com/potsawee) | [Google Scholar](#)

## EDUCATION

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### University of Cambridge

Cambridge, UK

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

*Oct 2019 – Apr 2024 (expected)*

- Work in the Machine Intelligence Lab under the supervision of Prof. Mark Gales
- Recipient of the Cambridge International & St John's College Scholarship
- Research Areas: Natural Language Processing (NLP) and Machine Learning (ML)  
→ Summarization, Question-Answering, Large Language Model, Hallucination Detection
- First-author publications at top-tier NLP/AI conferences, e.g. **ACL**, **EMNLP**, **\*ACL**, **InterSpeech**

### 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
- **Honour with Distinction** in the fourth-year (Masters Program)

## EXPERIENCE

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### University of Cambridge

Cambridge, UK

*PhD Researcher*

*Oct 2019 - Apr 2024 (expected)*

- *Hallucination Detection*: Developed “SelfCheckGPT” [EMNLP 2023] with 300+ stars on GitHub, 9000+ downloads via PyPI, 150+ citations, and featured in deeplearning.ai, Washington Post, etc
- *Language Model Evaluation*: Worked on evaluating faithfulness in summary generation [AAACL 2023], zero-shot LLM evaluation [EACL 2024], podcast summary assessment benchmark
- *Summarization*: (1) state-of-the-art results on long documents [ACL 2021]; (2) efficient architectures [EMNLP 2021]; (3) medical note summarization [won BioNLP 2023]; (4) podcast summarization [won Spotify Challenge 2020]; (5) meeting summarization [InterSpeech 2020]

### SCB 10X

Thailand & Remote

*AI Researcher (Contract)*

*Nov 2023 – Feb 2024*

- Worked on “Typhoon-7B” – state-of-the-art open-source Thai large language model
- Worked on Thai LLM Evaluation Benchmarks
- Tech Report: <https://arxiv.org/abs/2312.13951>, Model: <https://huggingface.co/scb10x/typhoon-7b>

### Amazon

Berlin, Germany

*Applied Scientist Intern*

*Sep 2021 – Mar 2022*

- Developed video summarization model which improved automation rate by 4%
- Published a paper at the Amazon Computer Vision Conference (ACVC) 2022
- Community Shopping Science Team hosted by Hani Al-Shater and Nam Khanh Tran

### University of Cambridge

Cambridge, UK

*Undergraduate Research Intern*

*Jun 2018 – Aug 2018*

- Developed deep learning models for grammatical error detection
- Co-authored a paper accepted at ICASSP 2019

### MediaTek

Cambourne, UK

*Software Engineering Intern*

*Jun 2017 – Sep 2017*

### Healthera

Cambridge, UK

*Software Engineering Intern*

*Jun 2016 – Aug 2016*

## SELECTED PUBLICATIONS

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\*Google Scholar: <https://scholar.google.com/citations?hl=en&user=dVgn6boAAAAJ>

- A. Liusie, **P. Manakul** and M.J.F. Gales, “LLM Comparative Assessment: Zero-shot NLG Evaluation through Pairwise Comparisons using Large Language Models”, in **EACL 2024** (main).
- **P. Manakul**, A. Liusie and M.J.F. Gales, “SelfCheckGPT: Zero-Resource Black-Box Hallucination Detection for Generative Large Language Models”, in **EMNLP 2023** (main).
- **P. Manakul**, A. Liusie and M.J.F. Gales, “MQAG: Multiple-choice Question Answering and Generation for Assessing Information Consistency in Summarization”, in **AACL 2023** (main).  
→ **Area Chair Award (Generation and Summarization)**
- **P. Manakul**, Y. Fathullah, A. Liusie, V. Raina, V. Raina, and M.J.F. Gales, “CUED at ProbSum 2023: Hierarchical Ensemble of Summarization Models”, in **BioNLP Workshop at ACL 2023**.  
→ Best-performing system on the Problem List Summarization shared task
- **P. Manakul** and M.J.F. Gales, “Sparsity and Sentence Structure in Encoder-Decoder Attention of Summarization Systems”, in **EMNLP 2021** (main).
- **P. Manakul** and M.J.F. Gales, “Long-Span Summarization via Local Attention and Content Selection”, in **ACL 2021** (main).
- **P. Manakul** and M.J.F. 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**
- **P. Manakul**, M.J.F. Gales, L. Wang, “Abstractive Spoken Document Summarization Using Hierarchical Model with Multi-Stage Attention Diversity Optimization”, in **InterSpeech 2020**.  
→ **Best Student Paper Finalist**

## SELECTED HONOURS & AWARDS

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### ML/AI Awards

- AACL-IJCNLP 2023 Area Chair Paper Award (Generation and Summarization)
- 1st place in the Medical Note Problem List Summarization at the BioNLP Workshop at ACL 2023
- 1st place in the Spotify Podcast Summarization Challenge at TREC 2020 Podcasts Track
- InterSpeech 2020 Best Student Paper Finalist

### University Scholarships and Awards

- Cambridge International & St John's College Scholarship (Full funding for PhD) — 2019
- UARP (Undergraduate Academic Research Project) — 2018
- Winifred Georgina Holgate Pollard Memorial Prize (University Prize) — 2017
- BP 1st Year Prize (for achieving top 1% in 1st-year undergraduate engineering) — 2016

### Olympiads

- Silver Medal from 45th International Physics Olympiad (IPhO) in Astana, Kazakhstan — 2014
- Gold Medal from 15th Asian Physics Olympiad (APhO) at National University of Singapore — 2014
- Bronze Medal from 14th Asian Physics Olympiad (APhO) in Bogor, Indonesia — 2013

## INVITED TALKS

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- ML Collective - Deep Learning: Classics and Trends (DLCT), August 2023  
Topic: LLM Hallucination Detection and SelfCheckGPT [Link]
- Washington Post Interview, May 2023  
Topic: AI Hallucination [Link]
- ALTA Technology Seminar (Cambridge University Press & Assessment), November 2022  
Topic: Assessing Information Consistency in Summarization
- Speech Seminar (Engineering Department, Cambridge University), May 2021  
Topic: Long Sequence-to-Sequence Modelling and Summarization

## PROFESSIONAL SERVICES

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### **Reviewer**

- ACL Rolling Review 2024
- ICLR 2024
- NeurIPS 2023
- ICML 2023
- InterSpeech 2023
- IEEE Transactions on Audio, Speech, and Language Processing 2022, 2023

### **Teaching Experience at Cambridge**

- Third-year Undergraduate: 3F7 Information Theory and Coding
- Second-year Undergraduate: 2P7 Vector Calculus, Linear Algebra, Probability
- MPhil in Machine Learning and Machine Intelligence: MLMI13 Introduction to NLP
- First-year Undergraduate: Engineering Lego Lab

*Updated: February 2024*