Bryan Wilie

HKUST, Hong Kong | Homepage | Scholar Profile | Email: bwilie@connect.ust.hk

RESEARCH INTERESTS

LLM reasoning and evaluation, Multilingual LLMs, LLM-as-a-judge, LLM agents.

EDUCATIONS

The Hong Kong University of Science and Technology (HKUST) Aug 2021 – Mar 2026
PhD in Electronic & Computer Engineering, Advisor: Prof. Pascale Fung and Prof. Junxian He, GPA: 3.817/4.30 (Top 10%)

Institut Teknologi Bandung (ITB) Aug 2010 – Jul 2014
B.E. in Electrical Engineering, Advisor: Prof. Yudi Satria Gondokaryono, GPA: 3.68/4.00, Cum Laude (Top 10%)

RESEARCH EXPERIENCES

Huawei Noah's Ark Lab, Hong Kong Jun 2025 – Jun 2026
Research Scientist Intern in the Post-training Team. Mentor: Tiezheng Yu
Project: Tool-Integrated LLM-as-a-Judge via Reinforcement Learning.

The Hong Kong University of Science and Technology (HKUST) Aug 2021 – Mar 2026
Graduate Researcher at the Centre for Artificial Intelligence Research led by Prof. Pascale Fung
Project: Multilingual LLM, LLM reasoning and evaluation, knowledge-intensive and value-relevant LLM.

SELECTED PUBLICATIONS

Co-first-authored publications:

1. J-ToRL: Tool-Integrated LLM-as-a-Judge via Reinforcement Learning
   (oral) AACL 2026 | **Bryan Wilie**, Tiezheng Yu, Gerry Windiarto Mohamad Dunda, Jierun Chen, Chaofan Tao, Yan Xu, Junxian He, Pascale Fung
2. High-Dimensional Interlingual Representations of Large Language Models
   (oral) SIGTYP-ACL 2025 | **Bryan Wilie**, Samuel Cahyawijaya, Junxian He, Pascale Fung
3. Belief Revision: The Adaptability of Large Language Models Reasoning
   EMNLP 2024 | **Bryan Wilie***, Samuel Cahyawijaya*, Etsuko Ishii, Junxian He, Pascale Fung
4. PICK: Polished & Informed Candidate Scoring for Knowledge-Grounded Dialogue Systems
   AACL 2023 | **Bryan Wilie**, Yan Xu, Willy Chung, Samuel Cahyawijaya, Holy Lovenia, Pascale Fung
5. IndoNLU: Benchmark and Resources for Evaluating Indonesian Natural Language Understanding
   (oral) AACL-IJCNLP 2020 | **Bryan Wilie***, Karissa Vincentio*, Genta Indra Winata*, Samuel Cahyawijaya*, Xiaohong Li, Zhi Yuan Lim, Sidik Soleman, Rahmad Mahendra, Pascale Fung, Syafri Bahar, Ayu Purwarianti
6. High-Dimension Human Value Representation in Large Language Models
   NAACL 2025 | Samuel Cahyawijaya*, Delong Chen*, Yejin Bang*, Leila Khalatbari, **Bryan Wilie***, Ziwei Ji, Etsuko Ishii, Pascale Fung
7. NusaCrowd: Open Source Initiative for Indonesian NLP Resources
   ACL 2023 (Findings) | Samuel Cahyawijaya*, Holy Lovenia*, Alham Fikri Aji*, Genta Winata*, **Bryan Wilie***, Fajri Koto*, Rahmad Mahendra, Christian Wibisono, Ade Romadhony, Karissa Vincentio, Jennifer Santoso, David Moeljadi, et al.
8. How Long Is Enough? Exploring the Optimal Intervals of Long-Range Clinical Note Language Modeling
   LOUHI-EMNLP 2022 | Samuel Cahyawijaya*, **Bryan Wilie***, Holy Lovenia*, Huan Zhong, MingQian Zhong, Yuk-Yu Nancy Ip, Pascale Fung.
9. Integrating Question Rewrites in Conversational Question Answering: A Reinforcement Learning Approach
   ACL-SRW 2022 | Etsuko Ishii*, **Bryan Wilie***, Yan Xu*, Samuel Cahyawijaya*, Pascale Fung
10. IndoNLG: Benchmark and Resources for Evaluating Indonesian Natural Language Generation
    (oral) EMNLP 2021 | Samuel Cahyawijaya*, Genta Indra Winata*, **Bryan Wilie***, Karissa Vincentio*, Xiaohong Li, Adhiguna Kuncoro, Sebastian Ruder, Zhi Yuan Lim, Syafri Bahar, Masayu Leylia Khodra, Ayu Purwarianti, Pascale Fung

Highlighted publications (more at Google Scholar):

1. WorldCuisines: A Massive-Scale Benchmark for Multilingual and Multicultural Visual Question Answering on Global Cuisines
   (oral) NAACL 2025 | ***Best Theme Paper Award*** | Genta Indra Winata, Frederikus Hudi, Patrick Amadeus Irawan, David Anugraha, Rifki Afina Putri, Yutong Wang, Adam Nohejl, Ubaidillah Ariq Prathama, Nedjma Ousidhoum, Afifa Amriani, Anar Rzayev, Anirban Das, Ashmari Pramodya, Aulia Adila, **Bryan Wilie**, Candy Olivia Mawalim, Ching Lam Cheng, et al.
2. LLM Internal States Reveal Hallucination Risk Faced With a Query
   Blackbox NLP 2024 | Ziwei Ji, Delong Chen, Etsuko Ishii, Samuel Cahyawijaya, Yejin Bang, **Bryan Wilie**, Pascale Fung
3. Contrastive Learning for Inference in Dialogue
   EMNLP 2023 | Etsuko Ishii, Yan Xu, **Bryan Wilie**, Ziwei Ji, Holy Lovenia, Willy Chung, Pascale Fung
4. A Multitask, Multilingual, Multimodal Evaluation of ChatGPT on Reasoning, Hallucination, and Interactivity
   AACL 2023 | ***Area Chair Award (Language Modelling and Analysis)*** | Yejin Bang*, Samuel Cahyawijaya, Nayeon Lee, Wenliang Dai, Dan Su, **Bryan Wilie**, Holy Lovenia, Ziwei Ji, Tiezheng Yu, Willy Chung, Quyet V Do, Yan Xu, Pascale Fung*
5. Nusawrites: Constructing high-quality corpora for underrepresented and extremely low-resource languages
   (oral) AACL 2023 | ***Resource Award*** | Samuel Cahyawijaya*, Holy Lovenia*, Fajri Koto*, Dea Adhista, Emmanuel Dave, Sarah Oktavianti, Salsabil Maulana Akbar, Jhonson Lee, Nuur Shadieq, Tjeng Wawan Cenggoro, Hanung Wahyuning Linuwih, **Bryan Wilie**, Galih Pradipta Muridan, Genta Indra Winata, David Moeljadi, Alham Fikri Aji, Ayu Purwarianti, Pascale Fung
6. RHO (ρ): Reducing Hallucination in Open-domain Dialogues with Knowledge Grounding
   ACL 2023 (Findings) | Ziwei Ji, Zihan Liu, Nayeon Lee, Tiezheng Yu, **Bryan Wilie**, Min Zeng, Pascale Fung

PROFESSIONAL SERVICES

Area Chair	NeurIPS, ICLR, ACL, EMNLP, NAACL, ARR, 2024 – *now*
Workshop Proposal Reviewer	NeurIPS, 2024 – *now*
Reviewer	ACL, EMNLP, EACL, AACL-IJCNLP, COLING, ARR, 2022 – *now*
Mentor	ACL SRW, 2025
Teaching Assistant (COMP4471 Deep Learning in Computer Vision | ELEC2400 Electronic Circuits)	HKUST, 2021 – 2022
Session Chair of Information Extraction and Text Mining	AACL-IJCNLP, 2020

AWARDS

Best Theme Paper Award	NAACL, 2025
Area Chair Award (Language Modelling and Analysis)	AACL-IJCNLP, 2023
Resource Award	AACL-IJCNLP, 2023
HKUST Research Travel Grant	HKUST, 2021 – 2025
Hong Kong Postgraduate Research Studentship	HKUST, 2021 – 2025
Regional Winner of 2020 Facebook Developer Circles Community Challenge	Facebook, 2020
Successful Researcher at 9th United Nations Global PulseLab Research Dive	United Nations, 2019
Best presenter award at IEEE EECSI 2018	EECSI-IEEE, 2018
Semifinalist at Fujitsu Innovation Palm Pattern Recognition Challenge	Fujitsu, 2013

INDUSTRIAL EXPERIENCE

Senior, then Principal Data Scientist; **JULO Financial Technologies** Feb 2019 – Aug 2021
- Delivering applied industrial ML research and development on credit scoring, collection, and reject-inference techniques.
- Led and implemented ML, NLP, and CV modelling solutions in credit scoring, fraud, and collection.
- Advised CEO and CDO on research. Hired and managed a team of fellow data scientists.

Deep Learning Researcher; **ITB Innovation Entrepreneurship Center**, sponsored by **NVIDIA & AWS** Dec 2017 – Nov 2018
Researched pattern recognition and small-object counting, first-authored CountNet and published IDEnet at EECSI-IEEE 2018

Business Owner, Software Developer, Trading Facilitator; **Self-Employed** Jan 2016 – Feb 2018
Built and sold a running boarding house business, running in-house software development, and facilitating stock trading.

Engineering & Factory Manager, **ABB (Asea Brown Boveri)** Jun 2013 – Dec 2015
Co-managed in two different divisions in ABB Power Systems, Power Generation, and Power Product Medium Voltage