

Christopher Jack Bryant

Natural Language Processing Research Scientist

Email: chrisb@rhc.co.uk

Research Interests

Grammatical error detection and correction, Natural Language Processing, text simplification, artificial data generation, automatic data annotation and evaluation, computer-aided language learning, code-switching.

Research Employment

Staff AI Research Scientist 01/2026 - Present

Applied AI Research Scientist 03/2023 - 12/2025

Writer, Inc. San Francisco, California, USA (Remote)

Topics: Various text transformations incl. grammatical error detection and correction, text simplification, language identification, passive-to-active voice conversion, resolving split infinitives, hidden verbs, gender-neutral language. Software engineering, model optimisation, and AI system deployment.

Visiting Researcher 03/2023 - Present

Research Associate 01/2019 - 03/2023

Institute for Automated Language Teaching and Assessment (ALTA)

University of Cambridge, UK

Supervisor: Prof. Ted Briscoe and Prof. Paula Buttery

Topics: Grammatical error detection and correction, automatic annotation and evaluation, computer-aided language learning, code-switching, multi-word expressions.

Principal Applied Research Scientist 04/2022 - 12/2022

Reverso, Paris, France (Remote)

Topics: Grammatical error correction, artificial data generation, product development.

Research Consultant 01/2021 - 04/2021

Self-Employed, UK

Topics: Sustainability initiative classification in annual company reports.

Research Assistant 01/2014 - 08/2015

National University of Singapore, Singapore

Supervisor: Prof. Hwee Tou Ng

Topics: Grammatical error correction, discourse parsing.

Intern - LISTA Project 07/2012 - 09/2012

University of Edinburgh, UK

University of the Basque Country, Spain

Supervisor: Prof. Martin Cooke and Dr. M^a Luisa García Lecumberri

Topics: Accent perception, speech annotation

Education

Doctor of Philosophy in Computer Science 09/2015 - 12/2018

University of Cambridge, UK

Supervisor: Prof. Ted Briscoe

Thesis: Automatic Annotation of Error Types for Grammatical Error Correction

MSc Speech and Language Processing 09/2012 - 09/2013

University of Edinburgh, UK

Supervisor: Prof. Bonnie Webber and Prof. Philipp Koehn

Thesis: An Investigation into More Informative Methods of Machine Translation Evaluation

MA (Hons) Chinese and Linguistics – First Class

09/2008 - 09/2012

University of Edinburgh, UK

Dalian University of Technology, China

Supervisor: Dr. Robert Truswell

Thesis: The Syntactic Structure of Coverbs in Mandarin Chinese

Awards, Grants and Scholarships

Cambridge Language Sciences Research Incubator Fund	2019, 2021
Churchill College Conference Grants	2016 - 2018
Automated Language Teaching and Assessment (ALTA) PhD Studentship	2015 - 2018
Edinburgh Santander Masters Scholarship	2012 - 2013

Internationally Reviewed Publications

Kelvin Wey Han Chan, Christopher Bryant, Li Nguyen, Andrew Caines and Zheng Yuan. 2024. “Grammatical Error Correction for Code-Switched Sentences by Learners of English.” In *Proceedings of the 14th Language Resources and Evaluation Conference, co-located with the 30th International Conference on Computational Linguistics*, pages 7926–7938, Turin, Italy.

Andrew Caines, Luca Benedetto, Shiva Taslimipoor, Christopher Davis, Yuan Gao, Øistein E. Andersen, Zheng Yuan, Mark Elliott, Russell Moore, Christopher Bryant, Marek Rei, Helen Yannakoudakis, Andrew Mullooly, Diane Nicholls and Paula Buttery. 2023. “On the Application of Large Language Models for Language Teaching and Assessment Technology.” In *Proceedings of the Workshop on Empowering Education with LLMs - the Next-Gen Interface and Content Generation 2023, co-located with 24th International Conference on Artificial Intelligence in Education*, pages 173–197, Tokyo, Japan / Online.

Katrina Kechun Li, Li Nguyen, Christopher Bryant and Kayeon Yoo. 2023. “Lexical tonal effects in code-switching: A comparative study of Cantonese, Mandarin and Vietnamese switching with English.” In *International Journal of Bilingualism.*, Volume 28:5, pages 799–827.

Li Nguyen, Christopher Bryant, Oliver Mayeux and Zheng Yuan. 2023. “How effective is machine translation on low-resource code-switching? A case study comparing human and automatic metrics.” In *Findings of the Association for Computational Linguistics: ACL 2023*, pages 14186–14195, Toronto, Canada.

Stuart Mesham, Christopher Bryant, Marek Rei and Zheng Yuan. 2023. “An Extended Sequence Tagging Vocabulary for Grammatical Error Correction.” In *Findings of the Association for Computational Linguistics: EACL 2023*, pages 1608–1619, Dubrovnik, Croatia.

Christopher Davis, Christopher Bryant, Andrew Caines, Marek Rei and Paula Buttery. 2022. “Probing for targeted syntactic knowledge through grammatical error detection.” In *Proceedings of the 26th Conference on Computational Natural Language Learning*, pages 360–373, Abu Dhabi, UAE / Online.

Shiva Taslimipoor, Christopher Bryant and Zheng Yuan. 2022. “Improving Grammatical Error Correction for Multiword Expressions.” In *Proceedings of the 18th Workshop on Multiword Expressions @LREC2022*, pages 9–15, Marseille, France / Online.

Zheng Yuan, Shiva Taslimipoor, Christopher Davis and Christopher Bryant. 2021. “Multi-Class

- Grammatical Error Detection for Correction: A Tale of Two Systems.” In *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing*, pages 8722–8736, Punta Cana, Dominican Republic / Online.
- Li Nguyen, Christopher Bryant, Sana Kidwai and Theresa Biberauer. 2021. “Automatic Language Identification in Code-Switched Hindi-English Social Media Text.” In *Journal of Open Humanities Data*, Volume 7:7, pages 1–13.
- Zheng Yuan and Christopher Bryant. 2021. “Document-level grammatical error correction.” In *Proceedings of the Sixteenth Workshop on Innovative Use of NLP for Building Educational Applications*, pages 75–84, Kyiv, Ukraine / Online.
- Li Nguyen and Christopher Bryant. 2020. “CanVEC - the Canberra Vietnamese-English code-switching natural speech corpus.” In *Proceedings of the 12th Language Resources and Evaluation Conference*, pages 4121–4129, Marseille, France / Online.
- Felix Stahlberg, Christopher Bryant and Bill Byrne. 2019. “Neural grammatical error correction with finite state transducers.” In *Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, Volume 1 (Long and Short Papers)*, pages 4033–4039, Minneapolis, Minnesota, USA.
- Christopher Bryant and Ted Briscoe. 2018. “Language model based grammatical error correction without annotated training data.” In *Proceedings of the 13th Workshop on Innovative Use of NLP for Building Educational Applications*, pages 247–253, New Orleans, Louisiana, USA.
- Christopher Bryant, Mariano Felice, and Ted Briscoe. 2017. “Automatic annotation and evaluation of error types for grammatical error correction.” In *Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics*, pages 793–805, Vancouver, Canada.
- Mariano Felice, Christopher Bryant, and Ted Briscoe. 2016. “Automatic extraction of learner errors in ESL sentences using linguistically enhanced alignments.” In *Proceedings of COLING 2016, the 26th International Conference on Computational Linguistics: Technical Papers*, pages 825–835, Osaka, Japan.
- Christopher Bryant and Hwee Tou Ng. 2015. “How far are we from fully automatic high quality grammatical error correction?” In *Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics and the 7th International Joint Conference on Natural Language Processing (Volume 1: Long Papers)*, pages 697–707, Beijing, China.
- M^a Luisa García Lecumberri, Martin Cooke, and Christopher Bryant. 2015. “Accent evaluation from extemporaneous child speech.” *Poznań Studies in Contemporary Linguistics*, Volume 51, pages 227–246.

Shared Tasks Organised

- Elena Volodina, Christopher Bryant, Andrew Caines, Orphée De Clercq, Jennifer-Carmen Frey, Elizaveta Ershova, Alexandr Rosen, Olga Vinogradova. 2023. “MultiGED-2023 shared task at NLP4CALL: Multilingual Grammatical Error Detection.” In *Proceedings of the 12th Workshop on NLP for Computer Assisted Language Learning*, pages 1–16, Tórshavn, Faroe Islands.
- Christopher Bryant, Mariano Felice, Øistein E. Andersen and Ted Briscoe. 2019. “The BEA-2019 shared task on grammatical error correction.” In *Proceedings of the Fourteenth Workshop on Innovative Use of NLP for Building Educational Applications*, pages 52–75, Florence, Italy.
- Nianwen Xue, Hwee Tou Ng, Sameer Pradhan, Rashmi Prasad, Christopher Bryant, and Attapol

Rutherford. 2015. “The CoNLL-2015 shared task on shallow discourse parsing.” In *Proceedings of the Nineteenth Conference on Computational Natural Language Learning - Shared Task*, pages 1–16, Beijing, China.

Hwee Tou Ng, Siew Mei Wu, Ted Briscoe, Christian Hadiwinoto, Raymond Hendy Susanto, and Christopher Bryant. 2014. “The CoNLL-2014 shared task on grammatical error correction.” In *Proceedings of the Eighteenth Conference on Computational Natural Language Learning: Shared Task*, pages 1–14, Baltimore, Maryland, USA.

Survey Papers

Christopher Bryant, Zheng Yuan, Muhammad Reza Qorib, Hannan Cao, Hwee Tou Ng, and Ted Briscoe. 2023. “Grammatical Error Correction: A Survey of the State of the Art.” In *Computational Linguistics*, volume 49:3, pages 643–701.

Theses and Technical Reports

Christopher Bryant. 2019. “Automatic annotation of error types for grammatical error correction.” *Technical Report UCAM-CL-TR-938*, PhD Thesis, University of Cambridge, Computer Laboratory.

Christopher Bryant and Mariano Felice. 2016. “Issues in preprocessing current datasets for grammatical error correction.” *Technical Report UCAM-CL-TR-894*, University of Cambridge, Computer Laboratory.

Other papers (ArXiv)

Shelly Bensal, Umar Jamil, Christopher Bryant, Melisa Russak, Kiran Kamble, Dmytro Mozolevskyi, Muayad Ali, Waseem AlShikh. 2025. “Reflect, retry, reward: Self-improving llms via reinforcement learning.” ArXiv, abs/2505.24726.

Melisa Russak, Umar Jamil, Christopher Bryant, Kiran Kamble, Axel Magnuson, Mateusz Russak, Waseem AlShikh. 2024. “Writing in the Margins: Better Inference Pattern for Long Context Retrieval.” ArXiv, abs/2408.14906.

Dan Hirlea, Christopher Bryant, Maurizio Zollo and Marek Rei. 2021. “Contextual Sentence Classification: Detecting Sustainability Initiatives in Company Reports.” ArXiv, abs/2110.03727.

Invited Talks and Tutorials

Current challenges in Grammatical Error Correction and other related NLP tasks 2023
AI, ML and Friends Reading Group
The Australian National University, Canberra, Australia

Grammatical Error Correction: Past, Present, Future 2023
Current Topics in NLP
Mohamed bin Zayed University of Artificial Intelligence, Abu Dhabi, UAE / Online

Grammatical Error Correction: Past, Present, Future 2023
Linguistics and Language Technology Laboratory Talk Series 2023
FPT University, Ho Chi Minh City, Vietnam / Online

Linguistics and Computer Science: Empowered by Collaboration 2023
When Linguistics Theory Meets Computational Practice (LiTComP) Workshop
University of Cambridge, Cambridge, UK

The Evolution of Automatic Grammatical Error Correction 2022

NLP4CALL Workshop Université catholique de Louvain, Louvain-la-Neuve, Belgium	
<i>An Introduction to Automatic Grammatical Error Correction</i> Cardiff NLP Summer Workshop Cardiff University, Cardiff, Wales	2022
<i>Current Challenges in Automatic Grammatical Error Correction</i> RIKEN Center for Advanced Intelligence Project (AIP) Konan University, Kobe, Japan / Online	2021
<i>An Introduction to Automatic Grammatical Error Correction (GEC)</i> AICTE Faculty Development Program, Recent Advances of NLP using Deep Learning National Institute of Technology, Silchar, Assam, India / Online	2021
<i>A Crash Course in Automatic Grammatical Error Correction</i> With Roman Grundkiewicz and Mariano Felice COLING Tutorials Barcelona, Spain / Online	2020
<i>ERRor ANnotation Toolkit: ERRANT</i> English Language iTutoring (ELiT) All-Hands Seminar Cambridge, UK / Online	2020
<i>Unsupervised Grammatical Error Correction given Detection</i> Automated Language Teaching and Assessment Annual Review Seminar Cambridge Assessment, Cambridge, UK / Online	2020
<i>The BEA 2019 Shared Task on Grammatical Error Correction</i> Automated Language Teaching and Assessment Annual Review Seminar Cambridge Assessment, Cambridge, UK	2019
<i>Where is the matrix language? Data from the Canberra Vietnamese English corpus</i> With Li Nguyen Center of Excellence for the Dynamics of Language (CoEDL) Linguistics Seminar The Australian National University, Canberra, Australia	2019
<i>Grammatical Error Detection and Correction</i> With Mariano Felice Summer School in Machine Learning for Digital English Language Teaching Chania, Crete, Greece	2017
<i>Automatic Annotation for Error Correction</i> With Mariano Felice Automated Language Teaching and Assessment Annual Review Seminar Cambridge Assessment, Cambridge, UK	2016
Supervising and Teaching	
<i>Grammatical error correction for code-switched sentences by learners of English</i> Kelvin Wey Han Chan MPhil in Advanced Computer Science, University of Cambridge Co-supervised with Dr. Zheng Yuan	2023
<i>Pre-trained Generative Language Models for Unsupervised Grammatical Error Correction</i>	2023

Yulong Lin MPhil in Advanced Computer Science, University of Cambridge Co-supervised with Dr. Zheng Yuan and Dr. Marek Rei	
<i>Grammatical Error Correction using Sequence-Tagging and Masked Language Modelling</i> Stuart Mesham MPhil in Advanced Computer Science, University of Cambridge Co-supervised with Dr. Zheng Yuan and Dr. Marek Rei	2022
<i>Using NLP To Detect Public Opinion of Stock</i> Karan Sharma BA (Hons) Computer Science, University of Cambridge Co-supervised with Dr. Mariano Felice	2022
<i>Introducing a Copying Mechanism to Translation-Based Grammatical Error Correction</i> Aleksander Misztal BA (Hons) Computer Science, University of Cambridge Co-supervised with Dr. Zheng Yuan	2022
<i>A Recursive Recurrent Neural Network Decoder for Grammatical Error Correction</i> Jiaxin Wang BA (Hons) Computer Science, University of Cambridge Co-supervised with Dr. Zheng Yuan	2022
<i>Detecting Sustainability Initiatives in Company Reports</i> Mircea-Dan Hirlea MSc in Artificial Intelligence, Imperial College London Co-supervised with Dr. Marek Rei	2021
<i>Artificial Error Generation for Grammatical Error Correction</i> Luou Wen MPhil in Advanced Computer Science, University of Cambridge Co-supervised with Dr. Marek Rei	2021
<i>Unsupervised Grammatical Error Detection</i> Simone Primarosa MPhil in Advanced Computer Science, University of Cambridge Co-supervised with Dr. Marek Rei	2020
<i>Natural Language and Information Processing</i> Small group supervisions University of Cambridge	2016–2017

Peer Reviewing

Area Chair for Empirical Methods in Natural Language Processing (EMNLP 2022)
 Computational Linguistics (CL)
 Computer Speech and Language (CSL)
 The Association for Computational Linguistics (ACL)
 The Association for Computational Linguistics Rolling Review (ARR)
 Transactions of the Association for Computational Linguistics (TACL)
 The North American Chapter of the Association for Computational Linguistics (NAACL)
 International Conference on Computational Linguistics (COLING)
 The Joint Conference on Lexical and Computational Semantics (*SEM)
 Workshop on Innovative Use of NLP for Building Educational Applications (BEA)

Workshop on Natural Language Processing Techniques for Educational Applications (NLPTEA)
Language Resources and Evaluation (LRE)
Software: Practice and Experience (SPE)
Natural Language Engineering/Natural Language Processing (NLE/NLP)

General Skills

Computing: Python, Bash, LaTeX, HuggingFace, optimum, onnxruntime, TensorRT-LLM, spaCy, NLTK, Git, Docker, GCP, artillery

Human Languages:

Native	English
Intermediate	Mandarin Chinese, Spanish
Upper Beginner	Italian, French
Beginner	Japanese, Vietnamese

Links

Website:	https://chrisjbryant.github.io/
Github:	https://github.com/chrisjbryant
Google Scholar:	https://scholar.google.co.uk/citations?user=jMq-Pg4AAAAJ
LinkedIn:	https://www.linkedin.com/in/christopher-bry4nt/