KEVIN CHRISTIAN WIBISONO

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EDUCATION

University of Michigan   *Ann Arbor, MI*
PhD in Statistics (advised by Dr Yixin Wang; GPA: 4.0/4.0)   *2021 - 2026 (expected)*
• Research focus: language models (self-attention, transformers, in-context learning) and causal inference.

Columbia University   *New York, NY*
MS in Data Science (GPA: 4.0/4.0)   *2019 - 2020*

National University of Singapore   *Singapore*
BS in Applied Mathematics and Statistics (GPA: 4.9/5.0)   *2015 - 2019*
• Fully funded by the *Singapore Ministry of Foreign Affairs' Undergraduate Scholarship*.

COMPUTING SKILLS

Proficient in Python (including *Tensorflow*, *Pandas*, *Numpy*, and *PySpark*), R (including *tidyverse*), and SQL.

PUBLICATIONS

• **Wibisono, K. C.** and Wang, Y. (2023). On the Role of Unstructured Training Data in Transformers' In-Context Learning Capabilities. *NeurIPS Workshop on Mathematics of Modern Machine Learning*.
• **Wibisono, K. C.** and Wang, Y. (2023). Bidirectional Attention as a Mixture of Continuous Word Experts. *Uncertainty in Artificial Intelligence*.

WORK EXPERIENCE

Graduate Researcher, *University of Michigan*   *Aug 2022 - present*
• Investigate the theoretical aspects of attention-based language models, focusing on their connections to classical models and capabilities to perform in-context learning from unstructured training data.
• Develop statistical methods for conducting causal inference with textual treatments or outcomes and estimating heterogeneous treatment effects in regression discontinuity designs.
• Published and presented works at prominent machine learning conferences, workshops, and symposiums.

Junior Data Scientist, *Walmart (Sam's Club)*   *Feb - Jun 2021*
• Improved Sam's Club fraud detection system through model stacking and advanced feature engineering in *PySpark*, leading to a reduction of around 30% in financial losses.

Data Scientist Intern, *Walmart (Sam's Club)*   *Jun - Aug 2020*
• Developed item-scoring algorithms to inform strategic price investment decisions for each club.
• Adapted and implemented NLP algorithms in *PySpark* for improved item elasticity predictions.

Data Scientist Intern, *Portcast*   *May - Aug 2018*
• Devised methods to improve existing cargo demand forecasting models of leading shipping companies.
• Enhanced forecasting accuracy via extensive market signal experimentation, reducing MAPE by 5 to 15%.

TEACHING AND LEADERSHIP EXPERIENCE

• **Teaching Assistant** for 8 courses, including *Data Analysis for Policy Research Using R* (graduate level), *Data Mining and Statistical Learning*, *Analysis of Algorithms* (upper undergraduate level), *Introduction to Data Science*, and *Fundamental Concepts of Mathematics* (lower undergraduate level).
• **Research Supervisor** for two undergraduates in exploring language models' geographical knowledge.
• **Events Chair** of UM Indonesian Society and **Student Mentor** of Columbia's Data Science Institute.

SERVICE

• **Reviewer** for AISTATS (2023 and 2024) and **Volunteer** for NeurIPS and ICSA Statistics Symposium (2023).

SELECTED AWARDS

• **Rackham International Student Fellowship** for exceptional academic and professional promise   *2023*
• **Ho Family Prize** as the best student in Applied Mathematics   *2019*
• Silver Medal in the **Asian Pacific Mathematics Olympiad**   *2013 and 2014*
• Bronze Medal in the **International Mathematical Olympiad**   *2013*