Tianqi Yu

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EDUCATION

Université Paris Cité, INSERM   **PARIS, FRANCE**
 Ph.D. of Biostatistics   02/2023 – present

West China Hospital, Sichuan University   **CHENGDU, CHINA**
 Master of Evidence-based Medicine and Clinical Epidemiology   09/2019 – 07/2022

Southwest Medical University   **LUZHOU, CHINA**
 Bachelor of Public Health - Preventive Medicine (Major: Epidemiology and Biostatistics)   09/2013 – 07/2018

RESEARCH INTERESTS

My research focuses on evidence synthesis methods and their practical applications. Currently, I am developing innovative tools to enhance the clear and transparent presentation of network meta-analysis (NMA) results, making them more accessible and insightful for end-users in evidence-based medicine. Additionally, I am working on creating a novel statistical method for component NMA. I'm also interested in leveraging large language models (LLMs) to streamline and improve evidence synthesis processes.

LANGUAGE

English ; Chinese (Native Speaker)

Software languages: R; Python; SQL

APPLICATIONS DEVELOPMENT

NMAstudio (https://www.nmastudioapp.com/)   02/2023 – present
- One of the main contributors to the development of NMAstudio, an open-access, fully interactive web application for performing and visualizing network meta-analyses (NMA).
- Built primarily using Python's Dash framework, with interactive plots generated by Plotly and statistical analyses conducted via R packages.
- Integrated multiple modules to provide seamless user experiences for running analyses and visualizing results automatically.
- The application is open-source, with the full code available on GitHub: https://github.com/CER-METHODS/NMAstudio-app.

Knowledge Translation Tool for NMA (https://www.nmastudioapp.com/skt)   02/2023 – present
- Developed as an extension of NMAstudio, focusing on summarizing results in a comprehensive and transparent manner.
- Designed to facilitate communication between statisticians and non-methodologists, such as clinicians and guideline developers.
- Features integration with Llmma, a large language model, to assist in interpreting and explaining analysis results.
- Open access with full code hosted on GitHub: https://github.com/CER-METHODS/NMAstudio-app.

EXPERIENCE

Université Paris Cité, INSERM   **PARIS, FRANCE**
PhD candidate   02/2023 – present
- One of the main contributors to the development of NMAstudio, an interactive online application for performing network meta-analyses (NMA) and visualizing results. Key modules include:
  - Homepage
  - Data uploading
  - Data analysis
  - Results Visualization
- Responsible for the development of an interactive online tool to summarize and present NMA results, with two versions:
  - Standard version
  - Advanced version
- Developing a novel statistical method for component NMA.

BioNovoGene   **CHENGDU, CHINA**
Clinical R&D Engineer   08/2022 – 12/2022

- Responsible for development of Statistical Analysis Plans of a cohort study about stroke, include statistical methodology, statistical programming procedures.
- Responsible for developing pipelines for machine learning methods (e.g., Random Forest, XGBoost, LightGBM, etc.) to predict outcomes using stroke datasets.

Parexel   **CHENGDU, CHINA**
Clinical Data Analyst (intern)   01/2022 – 07/2022
- Assist with protocol development, sample size calculation, protocol and case report form (CRF) review.
- Responsible for statistical input to statistical reports and Clinical Study Reports.

West China Hospital, Sichuan University   **CHENGDU, CHINA**
Graduate Research Associate   09/2019 – 07/2022
- Rapid evidence synthesis methods and decision system: rapid approaches as well as rapid decision-making
- Investigated the evidence of meta-analyses from the earliest studies to support decision-making by using a large real-world dataset of meta-analyses.
- Explored the data extraction error in meta-analysis.

Publications

1. **Yu, T**., Yang, X., Clark, J. et al. Accelerating evidence synthesis for safety assessment through ClinicalTrials.gov platform: a feasibility study. **BMC Med Res Methodol** 24, 165 (2024). https://doi.org/10.1186/s12874-024-02225-2.

2. Xu C, **Yu TQ***, Furuya-Kanamori L, et al. Validity of data extraction in evidence synthesis practice of adverse events: reproducibility study. 2022. **_BMJ_**. 377: e069155. DOI: 10.1136/bmj-2021-069155.

3. **Yu T***, Furuya-Kanamori L, Lin L et al. Synthesizing evidence from the earliest studies to support decision-making: to what extent could the evidence be reliable? [J]. **_Research Synthesis Methods_**. 2022 Jul 7. DOI: 10.1002/jrsm.1587.

Conferences

- **"An Interactive Scalable Knowledge Translation Tool for Network Meta-Analysis"**

  ISPOR Europe 2024, Barcelona, Spain (Poster)

- **"A Novel Interactive Scalable Knowledge Translation Tool for Network Meta-Analysis"**

  *Global Evidence Summit 2024, Prague, Czech Republic (**Runner-up**, Long Oral Presentation)*

- **"An Introduction to NMAstudio 2.0 and Its Embedded Knowledge Translation Tool for Network Meta-Analysis"**

  SRSM Annual Meeting 2024, Amsterdam, Netherlands (Oral Presentation)

- **"NMAstudio: A Fully Interactive Web Application for Producing and Visualising Network Meta-Analyses"**

  Cochrane Colloquium 2023, London, UK (Workshop)