



# Shan GAO



## PROFILE SUMMARY

Experienced **Biostatistician** with 5+ years of international expertise in **clinical trials** and **real-world data**. Proficient in **SAS** and **R** with strong background in **survival analysis** and **predictive modeling**. Skilled in cross-functional collaboration and regulatory-compliant reporting.

## CONTACT DETAILS

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in linkedin.com/in/shan-gao-stats

## SKILLS

- SAS (BASE, STAT, GRAPH)
- R (tidyverse, survival)
- Microsoft Excel, MS Word, MS PowerPoint
- HPC
- GitHub
- ICH-GCP
- CDISC (SDTM, ADaM)
- Communication and team collaboration

## LANGUAGES

Chinese (native)

English (fluent)

Japanese (conversational)

Dutch (conversational)

## HOBBIES

Photography

Gardening

Hiking

## EXPERIENCE

### PHD RESEARCHER

KU Leuven | Leuven, Belgium

2021.02–2025.04

- ◊ Managed the cleaning and preprocessing of *large-scale EHR datasets* spanning over 8 years (2012–2020) from UZ Leuven, using reproducible R workflows to ensure data quality for modeling, enabling downstream *risk prediction research*.
- ◊ Collaborated with nurses, clinicians, and infection prevention specialists to standardize clinical data definitions and select relevant variables, enhancing the *clinical relevance* and adoption potential of predictive models.
- ◊ Implemented and compared multiple modeling strategies on *high-performance computing clusters*, ensuring robustness and scalability across longitudinal EHR data.
- ◊ Developed and validated dynamic supermodels using the *landmarking approach* to predict CLABSI risk in real-time hospital settings, enabling timely identification of high-risk patients and supporting tailored interventions.

### BIOSTATISTICIAN

Astellas Pharmaceutical Inc. | Tokyo, Japan

2019.04–2021.02

- ◊ Provided statistical input on *Phase I–III study protocols*, including *sample size calculations* and *statistical analysis plan design*, ensuring *regulatory compliance* and methodological rigor.
- ◊ Drafted statistical sections for *protocols* and *Clinical Study Reports*, supporting submissions to global regulatory agencies (PMDA, FDA).
- ◊ Collaborated with statistical programmers to design *SDTM* and *ADaM* datasets aligned with *CDISC* standards, producing precise specifications for *TLFs* to ensure compliance and reproducibility.
- ◊ Worked with data managers and clinical investigators to harmonize *SAPs* with evolving data collection, minimizing inconsistencies between planned and actual analyses.
- ◊ Conducted *interim and final analyses* using *SAS*, delivering accurate and timely outputs for regulatory submission.
- ◊ Participated in routine *cross-functional meetings*, providing statistical perspectives during protocol reviews, data reviews, and safety updates, contributing to efficient team decision-making.

## EDUCATION

DOCTOR OF BIOMEDICAL SCIENCE KU Leuven

2021–2025

MASTER OF STATISTICS KU Leuven

2016–2018

BACHELOR OF CHEMICAL BIOLOGY & DOUBLE DEGREE BACHELOR OF ECONOMICS (MATHEMATICAL STATISTICS) Xiamen University 2012–2016

## PUBLICATIONS

FULL LIST AVAILABLE AT: ORCID 0000-0003-0871-1694

- ◊ GAO S, ALBU E, PUTTER H, ET AL. A COMPARISON OF MODELING APPROACHES FOR STATIC AND DYNAMIC PREDICTION OF CENTRAL-LINE BLOODSTREAM INFECTIONS USING ELECTRONIC HEALTH RECORDS (PART 1): REGRESSION MODELS. *Diagnostic and Prognostic Research* 9(1), 20 (2025).
- ◊ GAO S, ALBU E, TUAND K, ET AL. SYSTEMATIC REVIEW FINDS RISK OF BIAS AND APPLICABILITY CONCERNs FOR MODELS PREDICTING CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTION. *Journal of Clinical Epidemiology* 161, 127–139 (2023).