Yichen Han

B.Sc., LMU Munich | Research Assistant, HZI & LMU Dept. of Statistics
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Research Interests

Interpretable Deep Learning – Adversarial Robustness – Causal Inference – Genomics

Education

Ludwig Maximilian University of Munich, Munich, Germany　　　　　　10/2022 – 09/2025 (expected)
B.Sc. Statistics and Data Science (150 ECTS)　　Average grade: **1.1** (German system; 1 = best ~ GPA 4.0/4.0)
Minor in Biology (30 ECTS)
Thesis: Interpretable Sequence–based Deep Learning Models for Biomarker Discovery in Genomics (in progress)

Research Experience

Helmholtz Centre for Infection Research (HZI), Brunswick, Germany　　　　10/2024 – Present
Research Assistant, Computational Biology for Infection Research

- Member of the GenomeNet project (PI: Prof. Dr. Alice McHardy; Team lead: Dr. Philipp Münch).
- Extend `DeepG` (R package) with model-agnostic interpretability modules.
- Design adversarial stability tests for sequence-based classifiers

Statistical Consulting Unit (StaBLab), LMU Munich　　　　　　　　04/2024 – Present
Research Assistant and Statistical Consultant

- Delivered methodological support to 11 graduate projects (6 MSc, 5 PhD) in biology, medicine and psychology.
- Participate in research projects and ongoing consulting projects.

Teaching Experience

Department of Statistics, LMU Munich　　　　　　　　　　　　　10/2023 – 10/2024
Teaching Assistant

- **Descriptive Statistics and Exploratory Data Analysis** (Winter 23/24): led tutorials for ~120 freshmen; authored 10 Particify Quiz sessions; course evaluation rating: "very satisfactory".
- **Probability Theory and Statistics for Computer Science** (Summer 24): grading and technical support.
- **Descriptive Statistics & Probability Theory** (Summer 24): designated tutor for the department-sponsored exam-preparation course; authored the first half of tutorial materials and exercise sets (45 pages).

Selected Projects

MicrobeLLM & microbe.cards　　　　　　　　　　　　　　　　08/2024 – 10/2024
Co-author, HZI

- Built random-forest ensemble for LLM-derived phenotype prediction, co-author of the manuscript.

Wildlife Abundance in German National Parks　　　　　　　　　　02/2025 – 05/2025
Deputy lead (5 members), LMU

- Applied N-mixture models to camera-trap data from 10 parks; reviewed model robustness; produced abundance maps presented to the Bavarian National Park management team.

Publications

In review
Münch P.C., Safaei N., Mreches R., Binder M., **Han Y.** *et al.* (2024) Assessing the power of large language models for creating high-quality microbial metadata resources. *Under review.*

In preparation
Two co-authorship (statistical advisor) manuscripts and one co-first-authorship manuscript planned in 2025.

Leadership & Service

Appointment Commissions for two W2 Endowed Professorships (Machine Learning in the Life Sciences; Statistical & ML in Official Statistics) 03/2025 – Present
Primary student representative: review research and teaching dossiers, question candidates during hearings, and vote in short-list selection.

Statistics Student Council, LMU Munich 04/2023 – Present
Leader, Teaching Working Group; organiser of "Round Table for Teaching" events; website administrator.

Skills

Programming	R (advanced) · Python (intermediate) · SAS (intermediate)
Tools	Git, SLURM, Linux, LaTeX, Inkscape
Languages	Chinese (native), German (fluent), English (fluent), Norwegian (beginner)