# Hirofumi Shiba

### Profile and Skills

Hirofumi is currently a Ph.D. candidate at the Institute of Statistical Mathematics, working under the supervision of Prof. Kengo Kamatani.

He holds Japanese citizenship and is a native speaker of Japanese and Chinese. Additionally, He is fluent in English. Hirofumi codes in Python, R, and Julia.

#### Research Interests

- Monte Carlo methods, including Markov Chain Monte Carlo and Sequential Monte Carlo.
- Stochastic processes, including Markov processes and Stochastic Differential Equations.
- Machine Learning and Bayesian statistics, including Bayesian deep learning and multilevel modeling.

# Work Experience

**Research Assistant**. The Institute of Statistical Mathematics, Tokyo, Japan.

2023.7 – today

Contributed to the R package YUIMA, an open-source project aiming to simulate and infer multidimensional stochastic differential equations, with an emphasis on Bayesian inference.

**© Cooperative Researcher**. RCAST, the University of Tokyo, Japan.

2023.4 – today

Research on trustworthy AI and machine learning from the viewpoint of economic security.

Data Scientist. IMIS Co., Ltd.

2022.8 - 2024.1

Provided statistical analysis and machine learning solutions for clients in the manufacturing industry.

## **Education**

- **Ph.D. in Statistical Science**. *Graduate University for Advanced Studies, SOKENDAI, Tokyo, Japan.* 2023.4 2028.3 Superivsor: Kengo Kamatani
- **B.A. in Mathematics**. The University of Tokyo, Japan.

2019.4 - 2023.3