

Yusi (Roy) Yao

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EDUCATION

Virginia Polytechnic Institute and State University Blacksburg, VA
B.S. in Statistics, Data Science Option December 2025

- Courses: Methods of Statistical Computing (A), Experimental Designs (A), Applied Bayesian Statistics (A), Intermediate Data Analytics and Machine Learning (A), Computational and Stochastic Modeling (A), Probability and Distributions (A)
- Honors and Awards: Dean's List (All Semesters); MAOP Scholar (2024, 2025); Clyde Kramer Scholarship (2025)

College of the Holy Cross Worcester, MA
B.A. in Computer Science, Minor in Statistics and Physics Feb 2023

- Courses: Modern Physics (A-), Mathematical Structures (A-), Computer Security (A), Electromagnetic Theory (A-)
- Honors and Awards: Dean's List (Fall 2021, Spring 2022)

INTERESTS

Bayesian statistics; time series; stochastic modeling; machine learning

RESEARCH

QED lab at Virginia Tech (<https://lrjohnson0.github.io/QEDLab/>)
Supervisor: Professor Leah Johnson Jan 2025 - Present

- Engaged in an NSF-funded Research Experience for Undergraduates (REU) in the Quantitative Ecology and Disease (QED) Lab, focusing on mathematical, statistical, and computational models to understand ecological and epidemiological systems.
- Developed a comparative trait-based modeling pipeline for vector-borne disease transmission; digitized thermal sensitivity data of *Culicoides* biting midges and refit trait thermal response curves using bayesTPC to inform basic reproduction number (R_0) for Bluetongue virus.
- Enhanced the VectorByte initiative by creating and refining open-source tutorials on time-dependent Gaussian Process modeling and Bayesian trait inference, improving training in quantitative disease ecology.

PRIME lab at Virginia Tech (<https://vizpi.netlify.app>)
Supervisor: Professor Yan Chen Summer 2024

- Integrated a real-time code evaluation system and utilized LangChain to improve teaching efficiency, ensuring robust and secure data handling through service, route, and controller architecture.
- Improved the user interface by redesigning the feedback modal, session list, unit test cases, and chat system, enhancing the overall user experience.

Stanford Cohen Lab, Stanford University

Supervisor: Alice Kathmandu, Ph.D.

Jan - Oct 2021

- Developed lightweight web games to gather user behavior data within the WeChat platform.
- Prototyped new features for a turn-based grand strategy PE game using Cocos Creator and the Unity engine, enhancing user engagement.

Crypto-Modality, okex-realtime-trading-bot

Supervisor: Johnny Su, Bloomberg

Summer 2023

- Developed a Python asyncio high-concurrency trading bot deployed on Linux web servers to optimize real-time trading efficiency.
- Integrated a Bitcoin EMA strategy analyzer and automated order bots for opening and closing positions, with additional features such as position exporters and slippage handlers under development.

PUBLICATIONS

Applications of Bayesian Inference in Financial Econometrics: A Review. Yao, Y. (2025). *Economics and Management Innovation*, 2(2), 45–52. <https://doi.org/10.71222/mz71ts21>

INDUSTRY**Citizens Bank**

Westwood, MA

UX Researcher Intern (Hybrid)

June – Aug 2022

- Conducted generative research sessions on financial products through usability testing, improving the user experience and increasing the internal conversion rate by 16%.
- Documented and analyzed consumer behavior based on their online activities within the company's database, providing actionable insights.

Ernst & Young LLP

Shanghai, China

Strategy Intern

July 2019 - Feb 2020

- Contributed to the industry planning scheme for Nanjing High-tech District under the 13th Five-Year Plan compliance guidelines.
- Conducted interviews with 15 industry experts and officials, documenting key insights and reviewing financial documents for 54 high-tech companies, focusing on major shareholders and subsidiaries.
- Investigated the local IoT industry based on data collected from over 5,000 companies, providing strategic recommendations.

Hansight Tech (360Security)

Nanjing, China

PM Intern

May - Aug 2019

- Migrated over 10,000 client communication reports from a React App to WeChat Cloud for server rendering, enhancing data accessibility.
- Compiled B2B quotation sheets for the previous year, streamlining client communication processes.

**TECHNICAL
SKILLS**

Python, R, SAS, Power BI, Java, PostgreSQL, LaTeX, Bloomberg Terminal, MS Offices, Linux

HOBBIES

Offshore fishing (caught over 20 species; my rarest catch is a 24-inch blackfin tuna); traveling (to 20+ countries); camping; cooking (spent 1 month in culinary school)