Yingqi Gao

Los Angeles, CA • yingqi.gao.stats@gmail.com • linkedin.com/in/yingqi-gao • yingqi-gao.github.io

PhD candidate in statistics researching **machine learning** and **economics**, with a strong focus on **real-world data-driven** solutions. I develop market-driven AI mechanisms for digital economies, including **data, privacy, and AI derivatives**; and design AI systems that adapt to economic incentives, , including **LLM-powered ad auctions and uncertainty-aware AI chatbots**. With extensive experience in **data analysis**, I excel at translating complex insights into actionable strategies and collaborating across disciplines.

EDUCATION

PhD in Statistics & Data Science | Econ ML • University of California, Los Angeles 09/2021 - 06/2026

MA in Statistics in Statistics • Columbia University in the City of New York 09/2019 - 12/2020

Double BS's in Probability & Statistics, Management Science • UC, San Diego 09/2015 - 06/2019

RESEARCH EXPERIENCE

UC Los Angeles **02/2023 - Present**
PhD Researcher

- Pioneered a two-phase pricing mechanism that maximizes customer retention while ensuring scalable and revenue-optimal **dataset sales in dynamic markets** with fluctuating buyer participation.
- Engineered a **first-of-its-kind online learning algorithm** that accelerates **adaptive pricing** and regret reduction by leveraging insights from similar datasets, further driving long-term revenue optimization.
- Enhancing **AI chatbots**, especially in **healthcare AI**, with uncertainty quantification, enabling **statistical confidence assessment** to deliver more reliable and trustworthy **recommendations**.

Columbia University **12/2019 - 03/2020**
Graduate Researcher

- Optimized a **Bayesian hierarchical sparse VAR model** for multi-subject, multi-session fMRI analysis, leveraging **high-performance computing** and **Gibbs sampling** to enhance stability and scalability.

Columbia Business School **12/2019 - 03/2020**
Research Assistant

- Developed a high-accuracy algorithm for identifying university-registered patents, surpassing NBER's method through **data analysis**, refined **regular expressions**, and optimized extraction in **SAS**.

TEACHING & LEADERSHIP

UC Los Angeles & Columbia University 06/2021 - 06/2026
Teaching Associate

- Instructing statistics courses, covering **probability**, **inference**, **computational methods**, and **optimization**, while mentoring students in **R** programming, **data analysis**, and reproducible workflows.

UC San Diego 03/2018 - 06/2018
Group Leader, Data Analysis and Inference Capstone

- **Led** a team of six in a **fast-paced** statistical project course, driving **data analysis** across five real-world topics while **guiding** model development, decision-making, and efficient collaboration.

SKILLS

Programming: Python (SciPy, TensorFlow, PyTorch, rpy2), R, SQL, SAS, HPC & distributed processing

Economics: game theory, causal inference, A/B testing, mechanism design, auction theory, econometrics