

# Anton Yang

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## SUMMARY

As an undergraduate in Mathematics and Statistics, I am interested in applying my knowledge to quantitative research and utilizing AI to analyze economic policy questions. Through my coursework and research, I've been exposed to the practical applications of statistical techniques in addressing real-world issues in both economics and health. I am excited about the opportunity to apply my knowledge in an International Economics and Technology internship at the Council on Foreign Relations, contributing to quantitative research and offering assistance on book projects by contributing fresh ideas.

## EDUCATION

**University of Missouri** Columbia, MO  
Bachelor of Science, major in Mathematics, major in Statistics  
Minor: Information Technology.  
Honors: Winner of DataFest for Use of Statistical Analysis, University of Missouri Dean's List  
Coursework: Accounting, Applied Statistical Model, Database System, Economics, Mathematical Statistics, Probability Theory, Statistical Inference, Statistical Software Analysis, Theory of Interest

Expected Graduation: May 2025  
GPA: 3.91/4.0

## PROFESSIONAL EXAMS

- Passed SOA Exam P (Probability)
  - Passed SOA Exam FM (Financial Mathematics)
  - Passed SOA Exam SRM (Statistical Risk Modeling)
  - Sitting for SOA EXAM FAM (Fundamental of Actuarial Model)
- December 2023

January 2024

May 2024

November 2024

## TECHNICAL AND SOFT SKILLS

**Programming Languages:** R, Python, SQL, Microsoft Excel, C#  
**Skills:** Analytical Thinking, Attention to Detail, Time Management, Organization, Quick Learner

## RELEVANT EXPERIENCE

- University of Missouri**, Columbia, MO  
*Research Assistant*

August 2023 - Present

  - Developed and implemented a simulation using R to predict probabilities and validate our mathematical computations.
  - Utilize simulation results to optimize probability calculations, enhancing the precision of winning predictions for Base and Bullseye KENO games.
  - Presented research findings at our school's research week, contributing to thought leadership and facilitating knowledge exchange within the gaming and statistics communities.
- University of North Carolina Charlotte**, Charlotte, NC  
*Undergraduate Researcher*

May 2023 - August 2023

  - Conducted extensive simulations using R programming language to develop and optimize statistical methods for personalized medicine.
  - Explored various techniques like Ordinary Least Squares, LASSO, Kernel regression, and PCA to find the optimal treatment based on individual patient characteristics.
  - Skillfully utilized High-Performance Computing (HPC) to expedite simulation runs, mitigating the curse of dimensionality and significantly reducing computational time by 60%.

## PROJECT EXPERIENCE

- Regression Analysis on Individualized Treatment Rules**
- Built extensive simulation to randomly generate medical data that accurately depicts real-world data.
  - Implemented Qian and Murphy's method on optimizing Individualized Treatment Rules.
  - Explored various ways to mitigate the curse of dimensionality such as PCA and Random Forest.

- Stock Market Application**
- Designed and implemented an RShiny application to analyze stock market trends utilizing moving average smoothing and exponential smoothing techniques.
  - Created interactive visualizations to display stock market performance, utilizing Holt-Winter Model and Arima models.
  - Conducted comprehensive data analysis to support investment strategies and improve predictive accuracy for stock market fluctuations.