# Anton Yang

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## SUMMARY

## As an undergraduate in Actuarial Science and Statistics, my experiences have deepened my interest in data analysis and statistical modeling, particularly in the context of actuarial practice. Through my research work, I've seen firsthand the practical applications of advanced statistical techniques in solving real-world problems I am eager to apply my knowledge to contribute meaningfully in actuarial roles, leveraging statistical insights to inform strategic decision-making and mitigate risk in various industries.

## EDUCATION

**University of Missouri** Columbia, MO Expected Graduation: December 2025

Bachelor of Science, major in Statistics, major in Actuarial Science GPA: 3.92/4.0

Minor: Information Technology.

Honors: Winner of DataFest for use of Statistical Analysis, University of Missouri Dean’s List

Coursework: Applied Statistical Model 1, Mathematical Statistics, Probability Theory, Statistical Inference,

Statistical Software Analysis, Theory of Interest

## PROFESSIONAL EXAMS

* Passed SOA Exam P (Probability) December 2023
* Passed SOA Exam FM (Financial Mathematics) January 2024
* Sitting for SOA Exam SRM (Statistical Risk Modeling) May 2024

## TECHNICAL AND LANGUAGE SKILLS

**Proficient in programming**: Excel, R, Python, SQL, NoSQL, C#

**Language**: Mandarin

## RELEVANT EXPERIENCE

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| **University of Missouri,** Columbia, MO | August 2023 - Present |
| *Research Assistant*   * 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 | May 2023 - August 2023` |

*Undergraduate Researcher*

* 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

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| **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.   **The Black-Scholes Model**   * Developed comprehensive understanding of financial derivatives models: the Black-Scholes Model. * Derive rigorous proof of the Black-Scholes Model and applied in practical applications. * Collaborated with graduate student to refine modeling techniques and delta hedging. |  |