Anton Yang

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SUMMARY

As an undergraduate in Actuarial Science and Statistics, I am interested in exploring data analysis and statistical modeling. Through my coursework and research, I've been exposed to the practical applications of statistical techniques in addressing real-world issues. I am excited about the opportunity to apply my knowledge in a data science internship at Vituity, contributing to data analysis and offering assistance by contributing fresh ideas.

EDUCATION

University of Missouri Columbia, MO — Expected Graduation: May 2025
Bachelor of Science, major in Actuarial Science, major in Statistics — 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, Database System, 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
- Passed SOA Exam SRM (Statistical Risk Modeling) — May 2024
- Sitting for SOA EXAM FAM (Fundamental of Actuarial Model) — 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 — 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

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
- 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.