Nicholas Appiah

niappiah@ttu.edu — +1 (806) 702 6411 — USA - Lubbock, Texas

SUMMARY

I am an ambitious and detail-oriented PhD student in Mathematics with a concentration in Mathematical Finance. With a strong foundation in actuarial science, statistics, and financial mathematics, I am passionate about applying advanced mathematical methods to real-world financial problems. Aiming to contribute to research in quantitative finance and option pricing models while continuing to expand my skills and knowledge in both academia and industry.

Education

- **Ph.D in Mathematics (Mathematical Finance)** Texas Tech University, Department of Mathematics and Statistics
  (August 2023 - Present)
- **Master of Science in Mathematical Science** African Institute for Mathematical Science, Ghana
  (October 2022 - August 2023)
- **Bachelor of Science in Actuarial Science, Dean's List** University of Ghana, Department of Statistics and Actuarial Science
  (August 2017 – September 2021)
- **Best Business Graduating Student** Accra High School, Business School
  (August 2014 – May 2017)

Certifications

- **IBM Certification: Introduction to Data Analytics**, Coursera (2024)
- **Macquarie University: Excel Skills for Business: Essentials**, Coursera (2020)

Fellowships

- **Helen DeVitt Jones Scholarship**, Texas Tech University

Work Experience

- **Graduate Part-time Instructor** Texas Tech University, Department of Mathematics and Statistics
  August 2024 - Present
  Course Instructor for Introductory Mathematical Analysis II (MATH-1331).
- **Graduate Teaching Assistant** Texas Tech University, Department of Mathematics and Statistics
  August 2023 - July 2024
  Grader for faculty members and tutor for undergraduate courses in mathematics.
- **Teaching Assistant** University of Ghana
  October 2021- August 2022
  Organized tutorial classes and assisted with marking and thesis reviews in Actuarial Science and Statistics courses.

- **Intern** Assure Advisors Limited
  July 2020 - November 2020
  Advertised and sold insurance policies, managed daily reports and cold calls.

Academic Experience

- **Thesis: Some Application of the Regression Method Estimate of the Extreme Value Index**
  African Institute for Mathematical Science (AIMS) 2023
  Helped to determine the most appropriate kernel for Ghanaian financial data, ensuring the asymptotic mean square error is zero.

- **Final Project: Modeling and Pricing of Weather Derivatives Using Non-Linear Brownian Motion Model**
  University of Ghana 2021
  Developed a model for temperature based on non-linear Brownian motion and calculated pricing for weather-related financial derivatives.

Research Interests and Projects

- **Limits of Subordinated Lévy Processes and Option Pricing**
- **Enhanced Option Pricing Models: Lévy Processes Having Subordinators with Positive Drift Coefficient**
- **Option Pricing with Bachelier's Subordinated Price Process**

All under the supervision of Professor Rachev Zari, Texas Tech University, yet to be published. These projects involve exploring advanced stochastic processes and their applications in the pricing of financial derivatives.

Skills

- **Programming/Software:** R, STATA, Python, MS Excel, MS PowerPoint, MS Publisher
- **Languages:** English (Fluent)
- **Other Skills:** Strong communication, teaching, and presentational skills; Advanced data analysis; Quantitative modeling.

Leadership and Community Engagement

- **Member, Academic Committee**, University of Ghana Actuarial and Statistics Society
- **MasterCard Scholar**, African Institute of Mathematical Science (AIMS Ghana)
- **Community Engagement:** Free community teaching and environmental initiatives, including cleaning services and donations.

References

- Dr. Perpetual Andam Boiquaye, psandam@ug.edu.gh
- Dr. Winnie Mokeira Onsongo, wonsongo@ug.edu.gh