Kwasi Boateng, Ph.D

Analytics & Insight Officer

📞 *(+61) 415522289*
✉ *kwasi.boateng@decyp.tas.gov.au*
🌐 *otalog.github.io/kwasiboat.github.io/*

CURRENT APPOINTMENT

- Data Systems and Insight; Department of Education Children and Young People (DECYP Hobart)
  - Analytics and Insight Officer (2024–present)
- Tasmanian Business School, University of Tasmania (UTAS Hobart)
  - Sessional Lecturer of Finance (2024–present)
  - Lecturer of Finance (2020–2024)

AREAS OF RESEARCH INTEREST

- Primary: Partial Differential Equation, Sustainable Finance, Market Microstructure, Big Data, AI and Finance,
- Secondary: Empirical Asset Pricing, Advance Data Visualization and Reporting

PAPER UNDER REVIEW

- Socially Responsible Investment Funds: A Robust Test of Efficiency - The Journal of Financial Stability (JFS-D-24-00660)

WORKING PAPERS

- ESG Performance as a Protective Shield during Market Shocks
- Socially Responsible Investment Funds: A Robust Test of Efficiency.

PROFESSIONAL TRAINING

Jul-Dec 2024	**Cetificate in Stock Market Micro-structure, Decentralized Finance, and Digital Finance**, *Global Financial Research Network, Australia*
Jun-Aug 2021	**Get Into Tech Bootcamp, WordPress, software development**, *INCO ACADEMY, Melbourne, Australia*
Jul-Dec 2020	**Cetificate in Stock Market Micro-structure**, *Global Financial Research Network, Australia*

PUBLICATIONS

Qiang, X., Appiah, M. Y., **Boateng, K**.,& Appiah, F. V.. (2020). Route optimization cold chain logistic distribution using greedy search method. OPSEARCH. OPSEARCH. http://doi.org/10.1007/s12597-020-00459-4.

K.Boateng, W. Yang, O. E. Michael, D. Yaro Jacobi Elliptic Function Solutions and Traveling Wave Solutions of the $(2 + 1)$-Dimensional Gardner-KP Equation, Mathematical Methods in the Applied Sciences, 2020. doi:10.1002/mma.6131

Kwasi Boateng, Weiguo Yang, Wilson Osafo Apeanti, David Yaro. New Exact Solutions and Modulation Instability for the Nonlinear $(2+1)$-Dimensional Davey-Stewartson System of Equation, Advances in Mathematical Physics Volume 2019, Article ID 3879259, 15 pages.

Kwasi Boateng, Yang, W. , Otoo, M. and Yaro, D. (2019) Dispersive Traveling Wave Solution for Non-Linear Waves Dynamical Models. Journal of Applied Mathematics and Physics, 7, 2467-2480. doi: 10.4236/jamp.2019.710167.

RESEARCH STUDENT SUPERVISION

○ Bijay Bhattarai (Research Master Student, Co-supervisor)
○ Bishal Ghale (Research Master Student, Co-supervisor)
○ Puja Lama (Research Master Student, Co-supervisor)

EDUCATION

2019-2023	**Doctor of Philosophy in Finance**, *University of Tasmania*, Hobart, Australia
2020-2021	**Graduate Certificate in Research**, *University of Tasmania*, Hobart, Australia
2017-2020	**Doctor of Philosophy in Applied Mathematics**, *Jiangsu University*, Zhenjiang, China
2012-2015	**Master of Philosophy in Actuarial Science**, *Kwame Nkrumah University of Science & Technology*, Kumasi, Ghana
2008-2012	**Bachelor of Science in Actuarial Science**, *University for Development Studies*, Tamale, Ghana

AFFILIATIONS

Passed	**Society of Actuaries(SOA) exam FM/Financial Mathematics**
Member	**American Finance Association, Northern Finance Association**

PROFESSIONAL EXPERIENCE

2024-Present **Analytics and Insight Officer**, *Department for Education Children and Young People*, Hobart, Australia

- Developed and implemented data-driven insights using Python, SQL, and Power BI to enhance student performance analysis.

- esigned comprehensive data visualization dashboards to monitor key educational outcomesand support decision-making processes.

- Collaborated with data engineers to optimize data flows, ensuring data accuracy and consistency across multiple platforms.

- Developed secure data consumption APIs to facilitate cross-departmental data access and reporting.

- Provided actionable insights to support strategic initiatives in curriculum effectivenessand resource allocation.

2020-Present **Lecturer**, *University of Tasmania*, Hobart, Australia

- Designing and delivering courses in derivative markets, corporate finance, economics for managers, financial accountability, and management.

- Utilizing a variety of teaching methods, including lectures, tutorials, workshops, and case studies, to cater to diverse learning styles.

- Developing and implementing innovative assessment strategies to measure student learning outcomes effectively.

- Providing clear and constructive feedback to students to support their academic progress.

- Maintaining a strong focus on student engagement and fostering a positive and inclusive learning environment.

- Delivering tutorials on Market Derivtives, Corporate Finance, and Economic for Managers.

- Led a team of junior researchers in the development of new research methods.

Apr-Jul 2023 **Research Assistant**, *University of Melbourne*, Melbourne, Australia

- Writing R codes for penalization techniques for simultaneous estimation and variable selection for models for big data analysis.

Feb-Aug 2022 **Tutor**, *University of Technology Sydney*, Sydney, Australia

- Introduce students to the basics of business analytics, including key concepts such as data analysis, statistical modeling, and decision-making.Provide hands-on training in the use of software and tools commonly used in the field, such as Excel, R, and SAS.

- Assign case studies and real-world examples to help students understand how business analytics is applied in different industries and business scenarios.Encourage students to work on projects and group assignments that involve collecting, analyzing, and interpreting data.

- Provide guidance and feedback on students' work, and help them develop the critical thinking and problem-solving skills necessary to succeed in the field of business analytics.

2017-2020 **Research Fellow**, *Jiangsu University*, Zhenjiang, China

- Solving optimisation problems, identifying relevant variables for analysis, obtaining precise estimates of relevant parameters, and applying appropriate mathematical and statistical approaches to optimise complicated systems using R.

- Develop and implement numerical methods for solving nonlinear partial differential equations, such as finite difference, finite element, and boundary element methods.Study the properties and behavior of solutions to nonlinear partial differential equations, including existence, uniqueness, stability, and asymptotic behavior. Investigate the applications of nonlinear partial differential equations in various fields, such as fluid dynamics, heat transfer, and electromagnetism. Use analytical techniques, such as asymptotic analysis and perturbation methods, to understand the behavior of solutions to nonlinear partial differential equations.

- Develop new mathematical models for physical systems that involve nonlinear partial differential equations. Collaborate with other researchers in fields such as mathematics, physics, and engineering to apply nonlinear partial differential equations to real-world problems. Write and publish research papers and articles on nonlinear partial differential equations to disseminate findings and contribute to the field. Attend and present at conferences and workshops to share research and collaborate with other researchers in the field.

2015-2017 **Lecturer**, *Ho Technical University*, Ho, Ghana

Teach undergraduate/graduate courses in Mathematics, statistics and Finance. Develop and revise course materials, including syllabi, lectures, assignments, and exams. Advise students on academic and career matters. Conduct research and publish in top-tier journals. Participate in departmental and university service activities, such as committee work and student organizations.

Awards

- University of Tasmania Graduate Scholarship
- Jiangsu University Presedential Scholarship

Skills

Strong statistical and quatitative analysis skills, including experience with software such as Python, Mathematica, Maple, R, SAS, and Matlab. Proficiency in data visualization tools such as Tableau and Excel. Excellent written and verbal communication skills. Fluent in English and basic Chinese.

Conferences

- AFAAZN PhD symposium 2023, Goldcoast, Australia.
- College of Business and Econnomics Higher Degree Research Annual Conference 2021. Hobart, Australia, October, 2021.
- Portfolio Construction Forum Market Summit, Sydney Australia. February, 2022.
- Data Analysis Tools, Jiangsu University Department of Financial Mathematics. Zhenjiang, China. June, 2017 and June 2018.
- Ghana Association of Statistics Students, 12th National I. C. T. Training Workshop in SPSS, Matlab, Epi-Info and Stata at University of Cape Coast, Ghana. 9th-12th October 2015.
- Institute of Mathematical Science, 16th Regional College on Modelling, Simulation and Opti-

mization at University of Cape Coast, Ghana. 27th April – 4th May, 2015.

- Integrated Business Establishment Survey(IBES,Training workshop organized by Ghana Statistical Service). 25th - 28th August, 2014.
- Institute of Mathematical Science 15th Regional College on Modelling, Simulation and optimization at University of Cape Coast, Ghana. 29th April - 10th May, 2014.
- International Symposium, National Institute for Mathematical Sciences at Kwame Nkrumah University of Science and Technology, Ghana. November 10, 2013.