Fonguila Mafouedong Franck Loïc

Curriculum Vitae

PhD Student in Statistics
Department of Mathematics and Statistics
Auburn University
221 Parker Hall, Auburn, AL 36849, USA

∗ 4 January 2000
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Education

January 2025 — Present
Doctor of Philosophy (PhD), Statistics, *Department of Mathematics and Statistics*, Auburn University, Auburn, AL, USA
Doctoral studies in statistics; Graduate Teaching Assistant.

October 2021 — August 2023
Master's Degree, *Faculty of Science*, Department of Mathematics, University of Douala, Cameroon
Master's degree in Mathematical Economics.

October 2018 — July 2021
Bachelor's Degree, *Faculty of Science*, Department of Mathematics, University of Douala, Cameroon
Bachelor's degree in Mathematical Economics.

Teaching Experience

January 2025 — Present
Graduate Teaching Assistant, *Department of Mathematics and Statistics*, Auburn University, Auburn, AL, USA

- **Instructor, MATH 1000 (Fundamentals of Mathematics).** Delivered lectures, prepared and graded assessments, held office hours, and assigned final grades.
- **Teaching / Grading Assistant** for undergraduate mathematics and statistics courses. Graded assignments and examinations and supported students during office hours.

Research Experience

Title — *Binomial Model and Evaluation of the Price of a Call Option*

Description — Studied the binomial model for one, two, three and n periods. Evaluated the price of a call option using the risk-neutral probability method and the replication method, and analysed the convergence of the binomial model towards the Black–Scholes model.

Title — *Construction of the Lebesgue Measure*

Description — Definition and examples of outer measure; measurability in the sense of Carathéodory, Carathéodory's theorem and criterion; construction of the outer measure and the Vitali condition for the Borel outer measure; construction of the Lebesgue measure on $\mathbb{R}$ and its extension to $\mathbb{R}^n$; non-measurable sets in the Lebesgue sense.

Title — *Construction of the Topologies of Pointwise and Uniform Convergence*

Description — Defined the relevant closures together with the hypotheses of continuity and of pointwise and uniform convergence.

Research Interests

- Risk theory · Option pricing and financial mathematics
- Financial econometrics · Insurance and statistical computing
- Deep learning · Economics and sustainability

Languages

French **Native**

English **Fluent**

Computer Skills

Statistical Computing R, Python, STATA, SPSS

Typesetting and Office LaTeX, Word, Excel, PowerPoint

Skill Matrix

 basic knowledge

 intermediate knowledge with some project experience

 extensive project experience

 deepened expert knowledge

 expert / specialist

Level	Skill	Years	Comment
	R	2	*Primary language used in the PhD program*
	Python	1	*Project and coursework experience*
	SPSS	2	*Project and coursework experience*
	LaTeX	4	*Project and coursework experience*
	STATA	1	*Project and coursework experience*

References

Available upon request.