Gonsalge Sureka Almeida | PhD

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Highly resourceful Researcher with Ph.D. in Applied Mathematics and Statistics along with extensive experience managing research projects in financial modeling. Offering subject matter expertise in financial mathematics and stochastic dynamics to the development of model risk management function with MRM framework. Instrumental in developing and integrating innovative econometric modeling and data mining. Well-versed in evaluating and mitigating potential risk/loss to investment decisions. Demonstrated ability to educate statistical/non-statistical professional by creating and delivering statistic training as well as and trading. Refined communicator with proficiency in building strong relationships across multi-disciplinary functions.

Areas of Expertise

- Research & Development
- Project Lifecycle Management
- Leadership
- Quantitative Analytics
- Financial & Statistical Modeling
- Data Gathering & Evaluation
- Risk Assessment & Mitigation
- Regulatory Compliance
- Reporting & Documentation

Technical Proficiencies

Tools & Software:	Turbo Pascal, Turbo C, Minitab, SPSS, SAS (with SQL), Matlab, Tableau, Latex, Word
Programming Languages:	R, Python, Mathematica, C++, SQL, Pine Script

Career Accomplishments

RISK ANALYSIS AND PORTFOLIO STOCK ALLOCATION FOR ALGORITHMIC TRADING

- https://github.com/gonsalgealmeida/Portfolio_Stock_Allocation_for_algorithemic_trading

PREDICTIVE ALGORITHMS FOR MARKET RISK, VOLATILITY, AND RETURNS

- Developed and implemented innovative econometric modeling and data mining.
- Developed algorithms for the calculation of Value-at-Risk(VaR) and Expected Shortfall (ES) in market risk using a Monte Carlo or a Historical Simulation.
- Performed time series analysis on stock returns by fitting Levy models and conducting statistical analysis paired with algorithmic simulations.
- Formulated a new method of financial distribution for skewness and high kurtosis data, which further facilitated innovation and algorithm development for new/existing financial models
- Deep understanding of mathematics and statistic, along with a passion for investing in the financial markets.

Career Experience

DVNproducts, LLC, Twinsburg, OH — **11/2020 – Present**
Trader/Financial Modeler

Managed trade of financial assets while developing algorithmic trading. Deliver data modeling based on stochastic levy models for predicting moving average and market volatility/risk. Predict VaR and ES for financial data.

- Developed subject matter expertise in trading by acquiring available education through T3live and SMBcapital.
- Diversified portfolio by implementing algo trading and controlling risk.
- Developed subject matter expertise in trading. Optimized moving average, volatility, and risk mitigation with R tools.

Case Western Reserve University, Cleveland, OH **8/2014 – 7/2019**
Graduate Student Instructor/Teaching Assistant – Department of Mathematics, Applied Mathematics, and Statistics

Taught and tutored students in statistics, including basic statistics for engineering and science with R, multivariate statistics and data mining with R, theoretical statistics, and linear models with R. Facilitated statistical faculty with office tours, ensuring students' comprehension of materials while supporting small projects using R and Mathematica.

- Devised instructional plan along with lesson plan and assignments, including Calculus and Intermediate Algebra.
- Evaluated and improved students' performance by grading homework/examination and sharing constructive feedback.

Department of Mathematics, Central Michigan University, Mt Pleasant, MI **8/2009 – 7/2014**
Graduate Student Instructor/Teaching Assistant

Educated students by teaching Intermediate Algebra, Calculus, and Trigonometry. Developed detailed lesson plans based on robust teaching methods, which ensured students' engagement and comprehension of materials.

- Tutored students in Mathematics and Statistics, including Calculus for undergraduate, Differential Equation, Elementary Statistics (STAT 282/382), Statistical Linear Modeling (STA 580), and Statistical Programming for Data Management and Analysis with SAS (STA 575).
- Improved students' understanding of statistics courses by providing support and guidance.

Prior experience as SAS Consultant/Trainer from 8/2011 to 1/2012 at Blue Cube Software Solution in Colorado.

Education

Data Engineering – Fellowship Program
The Data Incubator, Jan/ 2023 – June/ 2023

Ph.D. in the Applied Mathematics
"Financial Modeling with Lévy Processes and Applying Lévy Subordinator to Current Stock Data"
Case Western Reserve University, Cleveland, Ohio, 2020

Followed Ph.D. in Statistics
Central Michigan University, Mt Pleasant, Michigan, 2012 - 2014

Master of Art in Mathematics
Central Michigan University, Mt Pleasant, Michigan, 2011

Bachelor of Science in Computer Science and Statistics
University of Kelaniya, Srilanka, 2000