Gonsalge Sureka Almeida, Ph.D.

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Summary

A Statistician and educator with a Ph.D. in Applied Mathematics (concentration on Statistics). Extensive experience teaching statistics at undergraduate and graduate levels, with proficiency in data coordination, management, statistical and financial modeling, time series, and machine learning techniques. Demonstrated R, Python, and SAS expertise and a commitment to using modern pedagogical approaches, including online teaching and real-world data applications. Dedicated to fostering an inclusive academic environment, ensuring effective communication, and enhancing student learning.

Education

Data Engineering Fellowship Program, The Data Incubator, Jan 2023 – Jun 2023
Completed an intensive data engineering fellowship focused on large-scale data pipelines, automation, and machine learning integration.

Ph.D. in Applied Mathematics, Case Western Reserve University, Cleveland, OH, 2020
Thesis: *Financial Modeling with Lévy Processes and Applying Lévy Subordinator to Current Stock Data*

Ph.D. Coursework in Mathematics (Statistics concentration), Central Michigan University, Mt. Pleasant, MI, 2012–2014
Completed coursework and research prior to transferring to CWRU.

M.A. in Mathematics, Central Michigan University, Mt. Pleasant, MI, 2011
Concentration: Teaching College Math (Statistics)

B.Sc. in Computer Science and Statistics, University of Kelaniya, Sri Lanka, 2000

Diploma in Computer Programming, Technical Engineering College, Sri Lanka, 1998–1999

Technical Proficiencies

Languages: R, Python, Mathematica, C++, Java, SQL, Pine Script
Statistical Tools: Minitab, SPSS, SAS (with SQL), MATLAB, Tableau, Excel
Environments: Anaconda, Jupyter, VS Code, PyCharm
Version Control: Git, GitHub, GitLab
Databases: PostgreSQL, MySQL, SQLite
Cloud & DevOps: AWS (S3, EC2, Lambda, RDS), Docker, Kubernetes
LMS: Blackboard, Brightspace, Canvas, Moodle, Pearson, Cengage, WebAssign
Other: Microsoft Office Suite, LaTeX

Career Accomplishments

Portfolio Stock Allocation for Algorithmic Trading: GitHub Project Link
Developed econometric models and Monte Carlo simulations to evaluate market risk (VaR,

ES), created Lévy-based distributions for skewed returns, and modeled volatility and trading strategies.

Career Experience

Trine University, Online/Hybrid — Adjunct Professor, MBA/MCS/MSIS/MSISY (08/2024–Present)
Stark State College, Akron, OH — Adjunct Instructor (08/2024–07/2025)
Walsh University, OH — Adjunct Professor (01/2025–07/2025)
Bryant & Stratton College, Solon, OH — Adjunct Professor (08/2024–07/2025)
Outlier, Remote — Contributor (06/2024–08/2024)
DVNproducts, LLC, Twinsburg, OH — Financial Modeler (11/2020–Present)
Case Western Reserve University, Cleveland, OH — Grad. Instructor/TA (08/2014–07/2019)
Central Michigan University, Mt. Pleasant, MI — Grad. Instructor/TA (08/2009–07/2014)

Teaching Experience

Detailed course history across Trine University, Stark State College, Walsh University, Bryant & Stratton College, and earlier institutions, including: Calculus, Statistics, Financial Modeling, Data Mining, Advanced Math, and Statistical Programming with SAS.

Research Interests

- Financial modeling based on Lévy processes and algorithmic trading
- Stochastic processes and time series modeling
- Machine learning and statistical inference
- Engineering and physical sciences applications

Plan B and Additional Research (M.A.)

- Inverse Hyperbolic Sine Squared Distribution for Long-Tail Data
- Sinh Lognormal for Clustered Data
- Odd-Pareto Model for Insurance Loss Payments

Professional Associations

American Statistical Association, AMS, SIAM, DataTalks.Club, Stark State Faculty Association (Branding and Benefits Committee, 2024–2025)

Professional Development

Numerous training sessions in financial modeling, statistical computing, online teaching, and AI-based learning tools (T3Live, SMB, MoneyShow, SCREE, OFCC, MFCC, ODCC, Blackboard, Brightspace, etc.)