Gene Boo Ee Jin

Quantitative Risk & Analytics Specialist

gene.boo@aol.com | gene.boo@gmail.com +60-17-293 5647 (WhatsApp) +852-6507 8429 (HK)

Kuala Lumpur, Malaysia linkedin.com/in/gene-boo-007 geneboo.github.io/GBnfo

Professional Summary

Quantitative risk specialist with 20+ years of experience in financial derivatives, risk modeling, and data analytics. Proven expertise in developing and validating risk models across multiple asset classes, leading technical teams, and delivering client-focused solutions. Adept at Python, VBA, and cloud-based platforms with a passion for optimization and innovation. Strong background in both buy-side and sell-side environments with regulatory compliance experience (MAS, BNM, Basel).

Core Competencies

Quantitative Analysis

- Financial Derivatives Pricing
- Monte Carlo Simulation
- Copula Modeling
- Gradient Boosting/FFT/PCA/Hybrid Modeling
- Risk Metrics (VaR, ES)

Technical Expertise

- Python (Pandas, NumPy)
- VBA/Excel Financial Modeling
- C++ Quantitative Libraries
- SQL & Database Management
- RESTful API Integration

Risk Management

- Market & Operational Risk
- Traded & Non-traded Risk
- IRRBB & Liquidity Risk
- Model Validation Frameworks
- Basel Compliance

Leadership & Strategy

- Team Leadership (5+ members regionally)
- Pre/Post-Sales Engagement
- Regulatory Communication
- Workflow Optimization
- Policy/Model/Technical Documentation

Professional Experience

IBMR Projects Consultant Ambank Group

Mar 2025 - Present

- Provided SA-CCR implementation guidance across multiple asset classes
- Optimized Dupire PDE Local Volatility surface building in Python for VaR-testing engine
- Optimized Autocallable contract valuation in Python
- Developed accelerated Monte Carlo frameworks for derivative pricing
- Provided implementation guidance on IRRBB pre-payment modeling

Technologies: Python, Excel VBA

Product Specialist Qontigo, AxiomaRisk (now Simcorp)

Dec 2021 - Jun 2023

- Directed pre/post-sales for AxiomaRisk and Performance Attribution solutions
- Conducted buy-side client demos across multi-asset classes (EQ, FX, FI, ESG, Crypto, Private Assets)
- Developed Python automation scripts using AxiomaRisk API, reducing report generation time by 70%
- Created Excel integration tools using XLWings for real-time market data access
- Collaborated with engineering teams to resolve complex client technical issues

Technologies: Python, Pandas, Jira, Salesforce, AxiomaRisk API, Postman

Senior Quantitative Analyst Maybank Group

Sep 2019 - Aug 2021

- Designed Monte Carlo+bootstrap models for Operational Risk capital allocation
- Implemented Gaussian & T-copulae for tail-risk aggregation and Euler Allocation to quantify risk across 8 business units
- Built COVID-19 R_0 prediction model using polynomial regression (92% accuracy)
- Built FFT-based convolution tools for joint distribution modeling
- Developed Python based custom distribution (multi-modal) distribution fitting tools

Technologies: Python, Excel VBA, SQL

Head of Market Risk Model Validation Maybank Group

Mar 2014 - Mar 2019

- Led regional 5-member team validating traded/non-traded portfolio value and risk
- Presented validation results to senior management and regulators (BNM, MAS, HKMA)
- Developed independent pricing validation tools for FXO, IRO, Equity Derivatives
- Authored model documentation standards adopted bank-wide
- Designed IRRBB framework for non-maturing assets/liabilities

Technologies: Python, Excel VBA, C++, R, Matlab, MySQL

Senior Quantitative Analyst Ambank Group

Apr 2009 - Mar 2014

- Developed benchmark pricing models for derivatives across FX, EQ, IR asset classes
- Created volatility surface generators and correlation modeling tools
- Mentored junior team members on quantitative techniques

Risk Specialist for a Software Project Pilot Multimedia (now disbanded)

Jun 2007 - Jan 2008

- Developed staging tools for reading XML based formulae into C# proprietary software for Credit Risk
- Implemented logistic regression based tools for PD

Market Risk Analyst Fortis Bank SA (now BNP Paribas Fortis)

Aug 2006 - Jan 2007

- Developed Asian Basket option pricing and greek models for the market risk department

Contracts Analyst Electrabel SA (now ENGIE)

Aug 2000 - May 2006

- Developed spark spread and crack spread pricers in VBA & C++ for the Middle Office
- Worked with Murex to incorporate Energy Derivatives into the risk engine
- Developed Winter method based hourly profiling tool in SAS to capture hourly power profiles

Education

MBA, Global Management
Hochschule Bremen, Germany
Graduated: Sep 1999 | Grade: 1.0

BA, Business Administration
University of Hertfordshire, UK
Graduated: Mar 1998 | 2nd Upper Honours

Certifications

- AICB - Risk Management: Principles & Framework
- AICB - Risk Models, Capital & ALM
- Microsoft Visual Basic 6

Technical Proficiencies

</> Languages & Frameworks

- Python (Pandas, NumPy, SciPy, Scikitlearn)
- VBA/Excel (Advanced)
- C++ (Boost)
- SQL (MySQL, T-SQL)
- R, MATLAB
- JavaScript/Node.js

Platforms & Tools

- AxiomaRisk, RiskMetrics
- Murex, Algorithmics
- Front Arena, Bloomberg
- Microsoft Azure Cloud
- Git, Docker, REST APIs
- Jira, Salesforce, Postman

Methodologies

- Derivative Pricing Models
- Copula-based Risk Aggregation
- FFT Convolution Techniques
- Monte Carlo Simulation
- Machine Learning Basics
- Time Series Analysis

Hobby Projects

FunkyGraffy

Edutainment math visualization platform

funkygraffy.onrender.com

Convolve!

Empirical convolution tool for joint distribution modeling

Fit_it!

Continuous distribution fitting engine

Technical Publications

FFT Convolution for PDFs and Option Pricing

Linguistics

English - Native
Mandarin - Fluent
German - Intermediate
French - Basic
Flemish - Basic

Personal Portfolio

geneboo.github.io/GBnfo