Mark Ibrahim

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EDUCATION

University of Vermont, *Masters in Mathematics (expected May 2016)* Burlington, VT
Sole Instructor: Calculus II (38 students) and College Algebra (43 students)

Hamilton College, *Honors B.A. Mathematics, Magna Cum Laude* Clinton, NY
19th Gold Scholar for student of "highest standards." *Phi Sigma Iota*: highest honor for foreign languages

L'Institut d'études politiques, Sciences-Po Paris, France
Full-year academically intense immersion program, exclusively in French

MATHEMATICS

UVM Research Conference May, 2015, 4.6 million articles analyzed with supercomputer cluster
"What's so special about Philosophy? A meander through Wikipedia's first link network"

Mathematical Association (MAA) Seaway Section 2012, presented senior project on cryptography
"Secret Sharing Schemes using Lagrange and Newton Interpolation"

Seminar Thesis in Statistics 2012, *"The Pursuit of Happiness: engagement, flow, and well-being"*
via Chi-Square testing, Binary Logistic and Ordinal Logistic Regression of World Values Survey

SKILLS AND INTERESTS

- Python, algorithmic data analysis, R, Maple, iThink, persuasive writing, stochastic modeling, linear algebra
- Fluent in oral and written French, selected as course assistant independently leading discussion groups
- Jazz/classical piano, cognitive bias psychology, phenomenology, existentialism, Bob Dylan, good food

EXPERIENCE

UBS Graduate Training Program, Risk Management New York, NY
UBS Investment Bank, *Fixed Income Market Risk* Feb 2013 - Aug 2014
Revolutionized management of curve exposure, not captured under bank's standard risk framework
- Invented matrix sorting algorithm revealing and ranking large uncaptured sensitivities
- Identified poor curve positioning via Principal Component Analysis of 6-month sector curve dynamics

Transformed risk metric and Value-at-Risk evaluation from daily manual 2½ hours to nearly instant

UBS Wealth Management, *Credit Risk, Collateral Evaluation* Jun 2011 - Jan 2013
Single-handedly developed alert algorithm monitoring collateral concentrations against live market data
- GUI in Visual Basic incorporating screened headlines from RSS feeds and alert parameters
- Presented to CRO, CFO who enthusiastically endorsed implementation across all loan portfolios

ING Investment Management *Equities Research, International Value Portfolio* New York, NY
Portfolio manger purchased position in Malaysian Energy co based on research June - Aug 2010

Certified VITA Tax Preparer Oneida County, NY
Prepared Federal and State Tax Returns for low-income households as volunteer Jan - May 2009