

Mark Ibrahim

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SKILLS AND INTERESTS

- Python (Flask, numpy, pandas, matplotlib, object-oriented), bash, git, VIM, Latex, SQL, html, css, jQuery, JavaScript
 - Gighacks Burlington 2015: “*most innovative app*”; civic engagement through video search
 - UVM Agile CodeFest: *1st place winner*; interactive map of free food on campus
 - Co-organizer of Burlington Python User Group: taught beginner [Python Workshop](#)
 - Fluent in oral and written French, selected to independently lead University French discussion groups
 - Jazz/classical piano, cognitive bias psychology, phenomenology, existentialism, Bob Dylan, good food
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EXPERIENCE

UBS Graduate Training Program, Risk Management

New York, NY

UBS Investment Bank, Fixed Income Market Risk Manager

2013 – fall 2014

Revolutionized management of curve exposure, not captured under bank’s standard risk framework

- Invented matrix sorting algorithm revealing and ranking \$567k of uncaptured sensitivity per basis point
 - Identified poor curve positioning via Principal Component Analysis of 6-month sector curve dynamics
- Transformed risk metric evaluation \$658m Credit Portfolio from daily manual 2½ hours to nearly instant
- Tailored Python scripts yield full metric view, communicating with proprietary Value-at-Risk engine

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 \$22.2bn loan portfolios
- Reset FX risk model threshold uncovering 9 facilities accounted for 85% of risk within large data set

Condé Nast, freelance development

fall 2014– 2015

Social Media Posts App : automate and tag all Facebook and Twitter posts

JavaScript Google Calendar Extension: synchronize web production across team of writers/editors

PROJECTS

Wikipedia’s First Link Network ([connecting ideas](#)), 4.6 million articles analyzed with supercomputer cluster
“Connecting Every Bit of Knowledge: Wikipedia’s First Link Network Unravels”

Tappt, co-founder ([tappt](#)): instantly search video with human speech; “most innovative” —Gighacks 2015

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

EDUCATION

University of Vermont, Masters in Mathematics (expected May 2016)
Sole Instructor: [Calculus I](#) (72 students) and [Calculus II](#) (38 students)

Burlington, VT

Hamilton College, Honors B.A. Mathematics, Magna Cum Laude
[19th Gold Scholar](#) for student of “highest standards.” *Phi Sigma Iota*: highest honor for foreign languages

Clinton, NY

L’Institut d’études politiques, Sciences-Po

Paris, France

Full-year academically intense immersion program, exclusively in French