Thomas **Lucas**

FINANCIAL SOFTWARE ENGINEER

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Looking for opportunities in Data Science

Experience

Partners Capital   *London, United Kingdom*

ASSOCIATE FINANCIAL SOFTWARE DEVELOPER   *July 2014 - PRESENT*

Agile development of the in house software for front office and operations including the creation of dashboards, dynamic visualizations and Microsoft Office add-ins. By automating the production of PowerPoint slides, I saved around 3 hours of work per analyst per week.

[PHP - Javascript - jQuery - D3.js - C# - MySQL - AngularJS - HTML - CSS - Bootsrap - SVN - Team of 8 people]

La Banque Postale Structured Asset Management   *Paris, France*

FINANCIAL ENGINEERING INTERN - STRUCTURING AND FUND MANAGEMENT TEAM   *June 2013 - November 2013*

• Audit of 40 existing pricers and conception from scratch of 6 pricers dedicated to new products (formula funds, structured swaps)
• Creation and integration of a backtesting unit on the internal C# .NET structuration platform to improve and replace the old Excel tool: 51 different option payoffs available.

[VBA - Excel - C# .NET - WPF - Numerix - Bloomberg - SQL - Two-person team]

Education

M.Sc. Financial Engineering and Computer Science - *Honours*   *Grenoble, France*

ENSIMAG - GRENOBLE INSTITUTE OF TECHNOLOGY - *Major in Information Engineering and Financial Mathematics*   *2009 - 2013*

Master's degree in Quantitative Finance - *Honours*   *Grenoble, France*

PIERRE-MENDES-FRANCE UNIVERSITY, IAE   *2012 - 2013*

French Grandes Ecoles Preparatory Class - *Physics, Mathematics & Engineering Sciences*   *La Rochelle, France*

LYCEE JEAN DAUTET, LA ROCHELLE - *Preparing for the national competitive exam for entry to engineering schools*   *2006 - 2009*

Skills

Programming	Python (Pandas, NumPy, scikit-learn) - D3.js - C# - Javascript - SQL - Java - Shell Script - jQuery - PHP
Software	R - IPython Notebook - Git - SVN - LaTeX - Unix / Linux
Mathematics & Finance	Inferential and Multidimensional Statistics - Machine Learning (supervised and unsupervised learning)
	Introduction to Information Retrieval - Monte-Carlo Methods - Financial Markets
Languages	French [Native] - English [Full professional proficiency - TOEIC 960/990] - Spanish [Limited working proficiency]

Workshop

Data Science Intensive Workshop   *Online*

SPRINGBOARD   *November 2015 - PRESENT*

Online Data Science intensive program mentored by an experienced data scientist from the Bay Area with focus on Data Wrangling, Analysis and Visualization, Inferential Statistics and Machine Learning and materialized by the realization of a **Capstone Project** of my choice.
The objective of this project is to analyze, illustrate and visualize the characteristics of popular music from 1960 to 2015 based on data from the *Billboard* Hot 100 year-end rankings. This analysis can be found on my blog, and its source code on GitHub.

[Python (SciPy, Pandas, Numpy, scikit-learn) - D3.js - HTML - CSS - BeautifulSoup - GitHub]

Academic Projects

Study of the profitability ratio of the BNP stock between 01/01/1993 - 12/31/2012

STATISTICAL STUDY OF DAILY, WEEKLY AND MONTHLY FINANCIAL DATA AND TIME SERIES MODELING   *2013*

• Statistical study of the profitability ratio distributions (descriptive statistics, hypothesis testing, probability plots)
• Time-series modeling: firstly using linear models (ARMA) and then using heteroscedastic models (ARCH and GARCH)

[Written in R - 3-student team]

Multidimensional Statistics Analysis Projects

THREE CONSECUTIVE PROJECTS COMBINING GENETIC, MEDICAL AND GEOGRAPHICAL DATA   *2012*

• Analysis of correlations between measures and blood rate of particular prostatic antigen
• Use of genetic markers to predict geographical origin (I) and continental location (II) of American Indians

[Written in R - Algorithms used: linear regressions / PCA / classification methods (LDA, k-nearest neighbors) / cross-validation / split validation - 2-student team]

Interests and Other Skills

Sports	Bodyboarding - Surfing - Climbing - Tennis (ranked player) - Athletics - Hiking - Mountaineering
Travelling	USA - Canada -Thailand - Canary Islands - Greece - Italy - Spain - Austria - Switzerland - Netherlands