# Guillaume Basse

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#### **Education & Credentials**

# Harvard University

Cambridge, MA

Master Candidate

Sep. 2011 - Dec 2012

- Degree: Master of Arts in Statistics (expected date of graduation: March 2013)

### **Ecole Centrale Paris**

Châtenay-Malabry

Master Candidate

Sep. 2008 - June 2010

- Degree: Master of Science (expected date of graduation: December 2012)
- Degree: Bachelor of Science (June 2009)
- Description: One of France's most prestigious "Grandes Ecoles" (Master's level engineering school)

#### Classes Préparatoires

Completed

Sep. 2006 - 2008

 Description: Intensive lessons in mathematics and sciences in preparation for the competitive entrance exams to the french "Grandes Ecoles".

#### Baccalauréat

Completed

July. 2006

 Description: National High School degree, obtained with "mention très bien et félicitations du jury" (highest distinction) .

### Research & School Projects

#### Bayesian models for PTM quantitation

Harvard University

Aug. 2012 - present

- Supervisor: Prof. Airoldi
- Designed and implemented a Bayesian model for the quantitation of PTM (post translational modifications)

# **Approximating Lognormal Convolutions**

 $Harvard\ University$ 

June 2012 - present

- Supervisor: Prof. Airoldi
- Developed a novel method for approximating lognormal convolutions for use in sampling mechanisms

### **DNA Processing**

Weizmann Institute of Science

July 2010 - Jan. 2011

- Supervisor: Prof. Ehud Shapiro
- Designed algorithm for efficient identification and extraction of shared fragments in DNA Libraries

### Parametric Model-Checking for Genetic Regulatory Networks

Applied Mathematics and Systems Department (MAS), ECP

Jan. 2010 - June 2010

- Supervisor: Prof. Aiguier and Prof. Le Gall

- Converted Genetic Regulatory Networks to Parametric Transition Systems using Linear Temporal Logic (LTL) and Büchi Automata.

### Agent-based Simulator of Order Book Dynamics

Châtenay-Malabry

Cambridge, MA

Rehovot, Israel

Appplied Mathematics and Systems Department (MAS), ECP

Sep. 2009 - June 2010

- Supervisor: Prof. Muni-Toke

- Designed algorithms reproducing the behaviour of Hedge Funds on financial markets
- Implemented the algorithms on the department's existing simulator
- Analysed the impact of different sets of parameters on the Hedge Fund's behavior

### Professional Experience

Harvard University

Research Assistant (Airoldi Lab) May 2012 - present

Harvard University

Cambridge, MA Teaching Fellow Jan 2012 - May 2012

Saint-Gobain

Paris, France Internal Audit Department - Intern Jan 2011 - July 2011

Weizmann Institute of Science

Department of Applied Mathematics and Computer Science - Intern July. 2010 - Jan 2011

Remy Cointreau USA

New-York, NY Corporate Marketing - Intern June. 2009 - Aug. 2009

**Tutor** Paris Sept. 2008 - July 2010

Mathematics and sciences - Tutor

Mitsubishi Motors Senegal Dakar

Mechanics in a team of five people July. 2007

# Computer / Language Skills

#### • Language

- French: Fluent

- English: writing and speaking proficiency (TOEFL: 116)

- Spanish: Listening proficiency

#### • Programming

- Languages: Python, R, Haskell, Common Lisp, C/C++.

# Awards & Fellowships

• Jean Gaillard Fellowship (\$35000)