

# HEITOR CHANG

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## EDUCATION

### New York University, Courant Institute of Mathematical Sciences, New York, NY

M.S. in Mathematics in Finance, GPA 3.4/4.0

Sept. 2007 — Jan. 2009

### Stanford University, Stanford, CA

M.S. in Materials Science & Engineering, GPA 3.6/4.0

Sept. 2005 — June 2007

B.S. in Mathematical & Computational Science, GPA 3.7/4.0

Sept. 2001 — June 2005

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## WORK EXPERIENCE

### Pontual Exportação e Importação, Ltda., São Paulo, SP, Brazil

Full-Stack Developer

Jan. 2014 — Present

- Create a REST API with the Slim Framework (in PHP) for product data retrieval by clients.
- Predict future sales volume using MA (Moving Average) indicators with Python and a Django app.
- Visualize historical sales with NumPy and Pandas and compile statistics.
- Manage clients, products, purchases and sales using a Django app.
- Develop and maintain a product catalog PHP website at <http://pontualimportbrindes.com.br/>
- Automate sales and stock data collection with a Java robot and generate a weekly report.
- Create a Single-Page App with AngularJS and Firebase to keep track of orders and reservations.

Sales Analyst

Nov. 2011 — Present

- Forecast sales for over 500 products and suggest which ones should be restocked.
- Determine sales discounts, credit terms and conditions depending on established limits.
- Compile lists of preorders, notifying the salesperson when products become available.

### Merrill Lynch & Co., Inc., New York, NY

Summer Associate, Global Research

June 2008 — Aug. 2008

- *Bonds* — Modeled the prepayment speeds of mortgage revenue bonds and calculated their prices and risk profiles.
- *Equities* — Backtested the performance of a cash-collateralized portfolio of futures as a potential new product.
- *Commodities* — Compared the returns and volatility of crude oil futures relative to large-cap refinery equities.

### Adair Capital, LLC, New York, NY

Intern, Hedge Fund of Funds

Sept. 2007 — Jan. 2008

- Performed Matlab risk analytics by correlating hedge fund strategies with macroeconomic risk factors to predict risk-adjusted returns for specific hedge funds.
  - Developed a Matlab GUI for a Brownian bridge process based on recursive estimates that measures hedge funds' exposure to benchmark indices and detects possible shifts in their investment strategy.
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## RESEARCH EXPERIENCE

### Dept. of Materials Science & Engineering, Stanford University, Stanford, CA

Mechanical Properties Research Assistant, Prof. R. H. Dauskardt Research Group

June 2005 — Feb. 2007

- Constructed fracture simulations to predict the reliability of novel and porous nanomaterials.
- Rewrote Matlab scripts as C programs, reducing execution time from two days to two hours.

### Carnegie Institution for Science, Stanford, CA

Genetics Research Assistant, Dr. Susan S. Thayer Research Group

Mar. 2004 — June 2004

- Performed regression analysis in SAS to identify correlations between eight data sets.