

# Jiyuan Ding

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## EXPERIENCE

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### Balyasny Asset Management

Chicago, IL

#### Quantitative Researcher, Alpha Capture Team

July 2017 – Present

- Conducted research on various conventional and alternative data sources to explore systematic trading strategies, including but not limited to consumer data, short interest, supply chain, CDS, SEC filings, earnings call transcripts and ETF flows.
- Deployed short sentiment based long-short equity alpha strategies for all three of US/EU/AP regions. Deployed two earnings-related strategies to improve portfolio performance pre-and-post earnings announcements.
- Extracted a cross-sectional risk factor that is significant for about 25% of the trading days examined using ETF flow data.
- Productionized a quant signal generation framework that provides unified interface to generate, validate, convert and upload trading signals. Greatly reduced the amount of repetitive code required for deploying strategies and improved robustness.
- Set up a workflow management system using Apache-airflow, docker and PostgresDB to automate daily signal generation, realize complex dependencies, manage logging, report performance attribution and monitor system status.
- Migrated an essential quantitative research tool written in R to the cloud using AWS Batch, S3 and docker to accommodate increasing computation needs. Enhanced research efficiency by reducing the execution time by an order of magnitude.
- Maintained and added new capabilities to a python analytical library that is actively used by many quant researchers within the firm. Improved documentation, enhanced performance, increased test coverage, and conformed code to PEP standards.

### Balyasny Asset Management

Chicago, IL

#### Quantitative Research Intern

January 2017 – June 2017

- Analyzed and visualized the computation time required by each component of the portfolio optimizer using cProfiler and SnakeViz. Identified inefficiencies and reduced run time by 50%.
- Reconstructed the risk exposures and covariance matrix of custom portfolios using cross-sectional risk factor models and attributed the performance of portfolios to a variety of style and industry risk factors.
- Constructed an event study tool using Python and SQL for analyzing the changes in asset price and firm characteristics throughout event windows; examined the interactions between event-window returns and the magnitude of the events; tested for statistically significant difference in event quantile performances.
- Tested the hypothesis of earnings expectation management before announcement dates by constructing a factor from institutional holdings, earnings expectations and analyst coverage data.

### Lucena Research

Atlanta, GA

#### Quantitative Developer Intern

September 2016 – December 2016

- Implemented a pairs trading strategy in Python by seeking mean-reverting equity portfolios pairs; constructed entry and exit signals based on the residuals of the hedge portfolios; tuned hyperparameters and performed cross-validation
- Implemented unit tests, added documentation and refactored code base for quality assurance

### Kensho Technologies

Boston, MA

#### Research Analyst Intern

June 2016 – August 2016

- Generated event study reports on trending financial topics to identify potentially profitable trades
- Developed an interactive web tool using Python, Flask & JavaScript to analyze asset price movements under given scenarios

## SKILLS

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- Python: OOP, data ETL, flask, bokeh, plotly, scientific computing using NumPy, SciPy, Pandas and Statsmodels
- Analytics: multivariate regression, timeseries analysis, Classification and Regression Trees, LightGBM
- Linux: docker containerization, Apache-Airflow, AWS CLI, git, cron, ssh, shell scripting
- SQL: Microsoft T-SQL, Postgres
- Other programming languages: R, Java, Matlab, SAS, C++, JavaScript, D3.js, Select.js, jQuery

## EDUCATION

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### Georgia Institute of Technology

Atlanta, GA

#### Master of Science in Quantitative and Computational Finance

August 2015 – December 2016

- GPA: 3.8/4.0
- Key Coursework: Finance & Investments, Fixed Income, Accounting, Numerical Methods, Derivative Securities, Financial Data Analysis, Stochastic Processes, Risk Management

#### Bachelor of Science in Chemical and Biomolecular Engineering

August 2011 – May 2015

- GPA: 3.5/4.0