BRANDON MORETZ

Quantitative Development

An experienced software engineering professional with a successful track record working in the investment management industry. Successfully managed teams in a hands-on capacity at all of my previous roles after entering as an individual contributor.

Enjoys solving problems, learning and teaching others.

EDUCATION

Dec '19 | Mar '18

M.S., Data Science

Northwestern University

Evanston, IL

- Analytics and modeling specialization emphasizing applied statistics.
- Emphasis on both supervised and unsupervised statistical learning techniques.
- Financial engineering and risk management as electives.

Dec '06 | Aug '04

B.S., Computer Science (minor Mathematics)

Western Carolina University

Cullowhee, NC

- Developed an interactive modeling application using Direct3D for biometric data captured using WISDOM (**W**eakly **I**dentifying **S**ystem for **D**oorway **M**onitoring).

PROFESSIONAL EXPERIENCE

Oct '19 | Feb '13

Head of Development

MSD Capital, L.P.

New York, NY

Managed the software development team, reporting to Chief Operating Officer.

Analytics Platform

Lead development effort on a team of five to build our in-house data analytics system.

- Collaborated with front office users to develop specifications for interactive reporting modules (e.g., attribution, exposure, liquidity, cash availability).
- Worked with portfolio managers and analysis to build factor-based models and stock screeners.
- Developed scalable back-end data architecture that leveraged machine learning server (RevoScaleR) to host and execute our internally developed R packages.
- Ensured 85%+ unit test coverage over all layers of the application with a combination of NUnit, Moq, tSQL-t and test.that.
- Implemented a third party data warehouse solution to integrate accounting and order management systems to streamline the end of day NAV/P&L reporting.

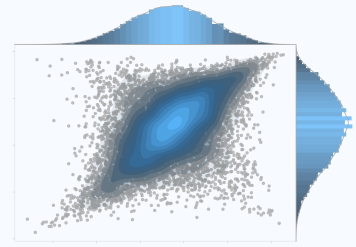
Technology: R, C#, T-SQL, tidyverse, WPF/WCF, Machine Learning Server

Trading & Risk Management

Worked with trading and operations to build out a risk management system.

- Created a suite of FX hedging and settlement tools to automate our FX process.
- Built core hedging model in R to support usage of various hedging metrics (e.g., FMV, MTM, cost, fixed, underlying, custom model) to calculate the target exposure by strategy, then aggregated across the firm.
- Consolidated disperse analyst models used to build option strategies in Matlab/Excel into an application framework built by leveraging QuantLib.
- Built a real-time profit-loss system by integrating data from our core accounting / OMS systems and enriching it with market data using our market data service.
- Developed a reusable market data service that encapsulated real-time feed requests for dependent upstream applications.

Technology: R, C++, C#, WPF/WCF, ReactiveX, QuantLib, Bloomberg SAPI



CONTACT

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LinkedIn

Github

Stack Overflow

Blog

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LANGUAGE SKILLS

Expert knowledge of the Windows Platform SDK, .NET Framework, Windows Presentation/Communication Foundations.

Experienced in statistical analysis, statistical learning models, and optimization methods.

Passion for building scalable, reliable and performant quantitative systems.

Oct '19 | Feb '13

Head of Development

MSD Capital, L.P. (Cont.) — New York, NY

Research Management

Worked with research analysts to create a global repository of company research.

- Developed a non-intrusive metadata tagging system used to tag and identify research content.
- Used supervised learning methods to automatically tag user generated and external content (e.g., company, filing, write-up, model, earnings call).
- Research content automatically parsed for investment indicators (i.e., price targets) and stored in elasticsearch.

Technology: Python, CLI/C++ Interop, NLP

Feb '13 | Jan '12

Quantitative Developer

Promontory Financial Group — Remote

On-site and remote software consultant focused on client record auditing systems.

Independent Foreclosure Review

Lead development and implementation on workflow application designed to audit fortune 10 client.

- Managed client deliverables with an average development life-cycle of 2.5 weeks throughout the project.
- System concurrently supported 2,000+ users in the system with an average transaction count of 1.1 million per day.
- The resulting data set was used as the statistical basis for agreed financial settlement to borrowers.
- Assisted SMEs in converting legacy SAS models to R and validating statistical output.

Technology: C#, T-SQL, R, SAS, WPF, Full-text Index

Dec '11 | Feb '07

Senior Developer

RR Donnelley — Charlotte, NC

Technical architect for financial publishing and content management applications.

RightContent

Technical architect for a suite of financial publishing applications.

- Implemented the full specification for front-page server extensions (version 13.1) to enable native (i.e., Word, Excel) remote content authoring.
- Wrote a comprehensive functional language that enabled an expression syntax SMEs used to migrate content between platforms.
- Developed an LL parsering engine and supporting libraries for content transformation and styling.

Technology: C#, T-SQL, ASP.NET, WebDAV

PROFESSIONAL DEVELOPMENT

Jan '15

Quantitative Analyst with R

Certification — DataCamp

Dec '19

Mathematics for Machine Learning

Certification — Imperial College London