



weston
mcdonald

RESEARCHER \ DEVELOPER \ LEADER

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EDUCATION

B.S. Physics
Loyola University Chicago

CODE

Python [stdlib + Anaconda]
Bash
SQL
Javascript
VBA
Blockchain

MATH

Regression Analysis
Time Series Analysis
Linear Algebra
Black-Scholes
Multivariate Calculus

MARKETS

Cryptocurrency
BTC
ETH + ERC-20
SP500
Metals
Forex

PROFESSIONAL EXPERIENCE

QUANTITATIVE DEVELOPER

Aegea Capital Management | 2019 - 2020

Financial Modelling: Used statistical modelling methods for the CBOE SP500 options market to gain insight into options skew and orderbook structure

Automated Systems Architecture: Led the initiative with our CTO for rebuilding our trading, accounting, and networking systems in an effort to migrate from VBA and Excel on Windows to Python and Bash on Linux

Strategy Backtesting: Built a robust application for backtesting our proprietary options trading strategy in Python, utilizing popular data science tools, such as pandas, matplotlib, numpy, and scikitlearn

CRYPTOCURRENCY RESEARCHER + TRADER

Private Trading Group | 2018 - Present

Market Research: Analyzed trade, orderbook, and funding data for spot and derivatives on a variety of exchanges in a subset of market environments

Practical Problem Solving: Utilized experience from market making and KYC to determine which exchange data is the most legitimate and trustworthy

Signal Backtesting: Trained and Backtested a model for predicting bullish market conditions based on a specific structure found within the spot orderbook

Cloud Automation: Automated analysis on a linux server streaming data via http

QUANTITATIVE DATA ANALYST

Optiver US | 2015 - 2018

Cutting Edge Engineering: Developed a Python script for performing live calculations of theoretical option spread PnL, based on first/second order greeks data, market microstructure, and orderbook logging from FPGAs

Innovative Business Development: Piloted a team tasked with launching a new desk for trading institutional order flow; together we built an automated system for sending volatility and pricing analyses to institutional clients

PERSONAL PROJECTS

