BRANDON KOEPKE — Finite Moment, Ltd.

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SUMMARY

Financial Technology Architect and Developer, Quantitative Researcher, and Portfolio/Trading Manager.

o Building a research and trading platform for UHNW and accredited investors. Several proprietary quantitative strategies under active development and implementation.

o Lead the Alpha Architect trading department and was the CTO overseeing two and a half billion USD in assets under management across twenty seven US listed exchange trade funds, separately managed accounts (diversified factors and trend following, 1042 QRP tax deferral, index arbitrage, and proprietary strategies), a managed futures hedge fund (CTA), and institutional strategies. Significant quantitative research. Built automated investment management, execution, institutional quality reconciliation, and reporting systems that previously required multiple teams to manage.

o Worked with the CEO and the owner of Interactive Brokers (the largest brokerage firm in the US), and the head of risk management at the Options Clearing Corporation during the March 2020 crisis to correct the Customer Portfolio Margin treatment of baskets at ibkr. This increased our leverage capability from a varying maximum of seven hundred percent gross long/short to two-thousand percent fixed. This prevented the forced liquidation of almost half a billion in assets at the time (well in excess of a billion today).

o Part of a team of eight who were formally recognized at the bi-annual Amazon Web Services all-hands meeting in 2016 for saving the company more than a quarter billion dollars. The following year the same system saved Amazon more than eight hundred and fifty million dollars.

o Earned two degrees while simultaneously working as the lead developer at Onstream Pipeline Inspection.

EDUCATION

CFA Charterholder	**Philadelphia, PA**
CFA Institute	*2020*
Bachelor of Commerce in Finance	**Calgary, AB**
University of Calgary	*2007–2013*
Bachelor of Science in Computer Science, specialization in Software Engineering	**Calgary, AB**
University of Calgary	*2007–2013*

EXPERIENCE

VOCATIONAL

Finite Moment, Ltd.

Chief Executive Officer — January 2022 –

o Quantitative Research consultant specializing in Finance and Economics.

o Building a UHNW and accredited advisory business and applying constraint solving to optimize investor outcomes.

Big River Analytics

Financial Analyst — April 2022 –

o Real estate, legal, tax, and historical financial analysis consulting for complex projects.

ETF Architect

Senior Financial Services Consultant — February 2023 –

o Onboarding SMA and ETF accounts onto EZE Castle.

o Improving Azure and AWS Infrastructure and proprietary trading technology.

Alpha Architect

Portfolio Manager — October 2017 – February 2023

o Lead Portfolio Manager for twenty-two US listed Exchange Traded Funds (ETFs); Co-Manager of five ETFs; Lead Portfolio Manager for UNHW clients; head of the Trading Department.

o Prevented the forced liquidation of over half a billion in customer assets.

o Consultant for new fund launches at ETF Architect.

o Built an institutional quality fund accounting, ETF trading, index generation, ETL, and Portfolio Management system.

o Quantitative Research and strategy development.

Strawhouse Labs

Senior Software Developer *January 2017 - September 2017*

o Developed an experimentation and template creation engine for maximizing affiliate marketing revenue.

o Redesigned a system for automating advertising copy generation greatly reducing time to market.

Amazon

Software Engineer *October 2015 - January 2017*

o Worked on a team that saved AWS two hundred and fifty million dollars in the first year, and eight hundred and fifty million the following year.

o Designed and implemented a system for selecting racks with the highest cost benefit ratio for retirement.

o Obviated four full-time roles by automating capacity setting for instance migrations and evictions.

Disney Interactive

Software Developer *January 2015 - October 2015*

o Lead maintainer of Disney's Club Penguin asset pipeline and production environment.

o Disclosed and resolved a major vulnerability exposing thousands of credentials and P-II data.

Disney Interactive

Associate Software Developer *May 2014 - January 2015*

o Presented container platform research at a conference in Los-Angeles.

o Significantly reduced operational burden by migrating pre-production servers to container platforms.

o Maintained several hundred development and production servers.

Onstream Pipeline Inspection

Software Developer *Summer 2011–Summer 2012*

o Developed Pipeline Analysis software that was sold for approximately three million dollars.

o Enabled the real-time visualization of over 7 billion points with dynamic downsampling. Wrote an algorithm for automatically finding metal loss in pipelines. The resulting algorithm found 90% of metal loss with 5% false positives.

Rayburns Marine World

Multiple roles *Summer 2003–Summer 2010*

o Worked in reception (phone, filing, etc), shop hand (anything that needed to be done), cleaning boats (including acid washes, detailing, etc), part sales (direct customers, internal service customers, and inventory management), and accounting (financial statement generation, auditing, etc).

o Managed Windows workstations, Windows and Linux servers, and network hardware.

Programming Languages

Proficient: C, C#, F#, Java, JavaScript, LaTeX, Project M, SML **Familiar with**: C++, F*, Haskell, OCaml, Python, R, Scheme

Computer skills

Programs: Microsoft Office, Bloomberg Terminal, FactSet, **Operating Systems**: Windows, UNIX
Interactive Brokers, Emacs, Version Control.
Programming Paradigms: Imperative, Object-Oriented, **Domain Specific Languages**: BNF, SQL, Regular Expressions
Functional, Modular, Logic

Projects

Self-Motivated ....

Interactive Brokers: Reverse-engineered and disclosed multiple vulnerabilities in their software security token.