



# Vivek Menon

DATA SCIENTIST · FINANCIAL RESEARCHER · TECHNICAL LEAD

Toronto, Canada

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## Summary

Technical director with 7+ years of managing data teams to achieve successful business outcomes via intelligent software. Passionate about data driven architecture, cross-team collaboration, & big visions. Grew up across a mix of emerging markets, so no stranger to getting my hands dirty. Also a fan of fractals, quantitative finance, functional programming & cats.

### DATA

Python (**NumPy**, **Scikit-Learn**, **Pandas**, **Matplotlib**, **Seaborn**, **Keras**, **TensorFlow**, **Jupyter**, **PyTorch**), R (**tidyr**, **dplyr**, **ggplot2**), Julia (**IJulia**, **GladFly.jl**), Matlab, Big Data (**PySpark**, **Hadoop**, **Redis**, **ETL**), SQL (**PostgreSQL**, **MySQL**, **CloudSQL**), NoSQL (**MongoDB**, **DynamoDB**, **DataStore**)

### DEVOPS

Google Cloud Platform (**Compute**, **Cloud Functions**, **Cloud Run**, **PubSub**, **BigQuery**), Amazon Web Services (**EC2**, **Aurora**, **Redshift**, **Lambda**, **S3**), Firebase (**Functions**, **Firestore**), Kubernetes (**Docker**, **Shopify**, **Wordpress**), Linux (**Debian**, **Ubuntu**, **NixOS**), Vagrant, CI/CD (**TDD**, **Jenkins**, **CircleCI**)

### DEVELOPMENT

Python (**Django**, **Flask**, **Requests**, **Coconut**, **Hy**), TypeScript (**NodeJS**, **Axios**, **Express**, **Lodash**, **Async.js**, **Request**, **PM2**, **Vue**, **REST/WebSocket API**), Haskell (**GHC**, **Stack**), Shell (**Bash**, **Zsh**), CSS (**Sass**, **Less**), Git, HTML, Clojure (**Aleph**, **Core.async**), LaTeX, Markdown, Microsoft Excel (**VBA**), Vimscrip, Elisp

## Experience

### Kinesso

Toronto, CA

#### DIRECTOR, DATA STRATEGY

Feb 2020 - Present

Spearheaded KAS Toronto (Kinesso Audience Solution), managing a team of 4 to 8x revenue (\$77K → \$650K) in 2021 across 30+ corporate clients, despite C19. Specialized in building and selling these Third Party (3PD) data products to clients & partners of the IPG Media holding group, including but not limited to Media Experts, Reprise, Universal Media, FCB, McCann, & Initiative.

- Created 400 HVAs 2 years, taking clients from ideation to deployment via SoWs, managed invoices, and specialized addendums for NA and APAC clients like Amazon (Rufus Retail, Video), LEGO Canada, Levi's, Sony Canada (Pictures, Music) & Nintendo Canada, yielding over \$50K monthly in media data spend.
- Established 11 case studies from scratch with clients like EQ3 and Hersheys, deploying High Value Audiences (HVAs), in partnership with Nielsen, Acxiom & Matterkind, demonstrating occasional 4x new-to-brand RoAS, 1.5x CTR, 10% reductions in open market CPMs across platforms like Google DV360, Tradedesk, Amazon Advertising, & Meta
- Led a skunkworks team to build and scale a Covid-19 response product to optimize ad outreach for clients post pandemic, including the Government of Canada; reaching near 70% adoption across all clients.
- Won part of the Johnson & Johnson business as part of the UM Thrive project, helping bringing over \$2MM in annual spend & beating Kinesso New York for client approval to use custom data products in NA
- Prototyping an inhouse AI attribution methodology for long term channel optimization (Meta vs. Amazon vs. Google).

### Lake Finance

Toronto, CA

#### FOUNDER & CTO

May 2018 - Nov. 2019

Exited a blockchain fintech startup with a mandate to engineer a practical set of financial tools for decentralized currencies; scaled to 11 person team and a \$1.6M USD valuation through bootstrapping, open-source grants and consulting.

- Raised \$100K at 6% (1.5MM valuation) from University of Toronto's inaugural Creative Destruction Lab (CDL) Blockchain-AI (BcAI) 18/19 incubator.
- Launched invite-only beta (\$120K over 200 users) of Lake Wealth, which provided AI-driven cryptocurrency portfolios hosted via cloud providers (Google Cloud Compute, Datastore, CloudSQL) & other asynchronous microservices to provide passive non-custodial investing.
- Wrote Hydra AI; a proprietary portfolio selection engine in Python 3 that searches via price momenta & genetic algorithms to hunt for alpha in extreme volatility (black swan) events, converging in multi-threaded  $\mathcal{O}(n \log n)$ , benchmarked with paper trades and live capital.
- Architected Lake Trade, an open source fault-tolerant Decentralized Exchange (dEX) allowing Ethereum users to trade ERC-20 / ERC-721 assets using the 0x V2 Protocol. Provided at cost & 0 fees for the Open-source community; raised \$100K grant from 0x Team to continue development in the blockchain and DeFi space.

### Juniper Park \TBWA

Toronto, CA

#### STRATEGIC DATA SCIENTIST

Nov. 2016 - Apr. 2018

Led the Toronto division of the global TBWA Digital Arts Network (DAN) and Apple's Media Arts Lab (MAL) by providing multi-platform analytics, end-to-end data solutions, & bespoke measurement strategies.

- Built highly-available & scalable data pipelines across 3 zones in the TBWA Network to pitch & solve business problems for 10+ multinational clients, including NFL, Nissan, Pfizer & Apple.
- Supervised a \$2M Adobe Marketing Cloud stack for Capital Group / American Funds, optimizing analytics via human analysis and machine learning to convert investors & advisors and grow their \$1.3 Trillion AUM.
- Led a 3 person cross-departmental team in partnership with TBWA\CHIAT\DAY focused on discovering creative applications of AI, including experiments with artificially-generated creative content via TensorFlow Magenta.

## Education

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### Udacity

NANODEGREE(S)

Mountain View, USA

September. 2017 - May. 2018

Member of some of the inaugural classes of the Nanodegree Program, as curated by Udacity, in partnership with IBM Watson, Amazon Alexa, Github, AT&T, OpenAI, & Google.

Apr. 2018 **Artificial Intelligence Nanodegree**, *sudokuAI, salesmanAI, nqueenAI, aslAI, pacmanAI, touristAI, faceAI, voiceAI*

Apr. 2018 **Web Development Nanodegree**, *linuxServer, itemCatalog, logAnalysis, movieTrailers, neighbourhoodMap*

Sep. 2017 **Deep Learning Nanodegree**, *introDL, cnnDL, rnnDL, lstmDL, qLearningDL, ganDL*

### Sauder School of Business - University of British Columbia

Vancouver, CA

B. COMMERCE, DOUBLE MAJOR IN FINANCE & MARKETING WITH A MINOR IN ECONOMICS

September. 2010 - May. 2014

Graduated May '14 with a double specialization and minor with emphasis on financial engineering, marketing behavior, and independent research into multi-fractal analysis.

## Research

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### Hydra AI: The Evolutionary Diversification Mechanism

Toronto, CA

AUTHOR

May 2018

A proposed solution to the *Offline Cardinality Constrained Multi Period Selection Problem*, as described via a patent-pending multi-agent adversarial solution that merges evolutionary strategies with probabilistic AI.

### Bitcoin Pricing & Volatility: A Multifractal Analysis

Vancouver, CA

AUTHOR

Oct. 2013

Explored if cryptocurrencies exhibit fractal properties like over-dispersion, long memory and self-similarity, in partnership with the UBC Finance Department.

## Certifications

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### BUSINESS

Sep. 2020 **CORE**, Harvard Business School Online

Cambridge, USA

Jun. 2018 **Artificial Intelligence: Implications for Business Strategy**, MIT Sloan Executive Education

Cambridge, USA

Nov. 2013 **Hootsuite Professional**, Hootsuite

Vancouver, CA

Sep. 2013 **Canadian Securities Course (CSC)**, Canadian Securities Institute

Toronto, CA

### TECHNOLOGY

Aug. 2019 **Solutions Architect Associate**, Amazon Web Services

Toronto, CA

Aug. 2019 **Developer Associate**, Amazon Web Services

Toronto, CA

Aug. 2019 **SysOps Administrator Associate**, Amazon Web Services

Toronto, CA

Nov. 2014 **Web Analytics**, Google

Toronto, CA