



Vivek Menon

DATA SCIENTIST · AI RESEARCHER · TECHNICAL LEAD

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Summary

Data lead driven by solving business problems with intelligent software. 5+ years of leading remote & local teams to find data solutions across multiple verticals, typically specializing in exploratory data analysis, machine learning, blockchains, adtech, and/or serverless architecture. 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**)

DEPLOYMENT

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

Joined Kinesso to deliver strategic insight into adtech and data technology, working in collaboration with various IPG companies including but not limited to Media Experts, Reprise, Universal Media, FCB, McCann, Initiative, and Cadreon.

- Currently tailoring solutions for primarily NA and APAC clients like Amazon (Rufus), LEGO Canada, Sony Canada (Pictures, Music) Nintendo Canada.
- Researched data methods to optimize pandemic outreach during Covid-19 responses across clients, including Government of Alberta and Government of Canada.

Lake Finance

Toronto, CA

FOUNDER & CTO

May 2018 - Nov. 2019

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

- Graduated from University of Toronto's inaugural Creative Destruction Lab (CDL) Blockchain-AI (BcAI) 18/19 incubator, raising \$100K at 6%.
- Launched invite-only beta (\$120K over 200 users) of Lake Wealth, which provided AI-driven cryptocurrency portfolios via an asynchronous set of Google Cloud Compute, Cloud Run, Datastore, CloudSQL & other 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.

JWT Mirum

Toronto, CA

DATA SCIENTIST

Jun. 2015 - Nov. 2016

Developed end-to-end data strategies for clients like UNICEF, McCain, & Getty Images often requiring database architecture, executive KPI frameworks, predictive modeling via machine learning, insight visualization & reporting.

- Built bespoke data solutions for 11+ clients, including new-to-market products such as Adidas (Avenue A) & Campari (Baron Samedi), alongside mature offerings like Montreal Canadiens (Club 1909) and Pfizer (Centrum)
- Worked within adhoc teams alongside strategic, creative & developer personnel to parse and pitch RFPs; acquiring 70% of businesses pitched on average.
- Analyzed social data across Twitter, Instagram, and Facebook for clients like TD, Walmart, & UNICEF using custom implementations of tools like PostgreSQL, Tableau, tidyR, Twitter Firehose, and Facebook GraphQL.

Education

Udacity

NANODEGREE(S)

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*

Mountain View, USA

September. 2017 - May. 2018

Sauder School of Business - University of British Columbia

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

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

Vancouver, CA

September. 2010 - May. 2014

Research

Hydra AI: The Evolutionary Diversification Mechanism

AUTHOR

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.

Toronto, CA

May 2018

TaaS as a Service: A Monte Carlo Simulation

AUTHOR

A simple simulation for Hootsuite to show the capabilities of the Monte Carlo model, as applied to traditional Software-as-a-Service metrics like LTV, CAC, MRR, & Churn, using an firm and a a programmatic Monte Carlo simulation for varying business conditions

Vancouver, CA

Jun. 2014

Bitcoin Pricing & Volatility: A Multifractal Analysis

AUTHOR

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

Vancouver, CA

Oct. 2013

Certifications

BUSINESS

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

Nov. 2013 **Hootsuite Professional**, Hootsuite

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

Cambridge, USA

Vancouver, CA

Toronto, CA

TECHNOLOGY

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

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

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

Nov. 2014 **Web Analytics**, Google

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