Vivek Menon

DATA SCIENTIST · FINANCIAL RESEARCHER · TECHNICAL LEAD
Toronto, Canada

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Summary

Technical product lead with over 7+ years of experience solving business problems with intelligent software. Passionate about building data driven products in emerging technologies & managing teams via a cohesive vision, targeted goals, nuanced hiring, well defined success outcomes, and 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**), Vimscript, Elisp

Experience

Kinesso
Toronto, CA

DIRECTOR, DATA STRATEGY
Feb 2020 - Present

Protoyped Kinesso Toronto, scaling a team of 2 with negative revenue pre-Covid to $250K in revenue, 10+ clients, and 3 hires. Develop new strategies to build, sell, and apply bespoke Third Party (3PD) Audiences for clients & partners of the IPG Media holding group, including but not limited to Media Experts, Reprise, Universal Media, FCB, McCann, & Initiative.

- Tailored SoWs for NA and APAC clients like Amazon (Rufus), LEGO Canada, Sony Canada (Pictures, Music) & Nintendo Canada, yielding over $20K monthly in media data spend.
- Latest case studies with Addressable audiences (HVAs), in partnership with Nielsen, Acxiom & Matterkind, have shown 4x new-to-brand RoAS, 1.5x CTR, as well as occasional 10% reductions in open market CPMs across platforms like DV360, Amazon Advertising, & Facebook
- 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

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+ 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 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 $\mathcal{O}(nlogn)$, 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.

- 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.

- Worked within adhoc teams alongside strategic, creative & developer personnel to parse and pitch RFPs; acquiring 70% of businesses pitched on average.

Education

Udacity   *Mountain View, USA*
NANODEGREE(S)   *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 multi-fractal analysis.

Research

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.

TaaS as a Service: A Monte Carlo Simulation   *Vancouver, CA*
AUTHOR   *Jun. 2014*

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

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

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*