Vivek Menon

Technical Lead & Principal AI Engineer

Machine Learning - Data Science - Cloud Architecture - Agent Orchestration

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SUMMARY

— **11 years leading teams to deploying scalable AI, data, and analytics systems** across multiple clouds, with **hands-on experience** with AWS Bedrock, GCP Vertex, Azure Copilot, Anthropic Claude, xAI Grok and OpenAI GPT.

— **Excels at bridging the gap between C-level executives and engineering teams;** with experience leading product pitches for startups, NGOs, or F500 enterprises to improve KPI performance while reducing costs, managing stakeholders, navigating NDAs, SLAs, and overseeing long-term industry partnerships.

— Scaled a global audience data platform from **$77K to $4.1M ARR over 4 years** while handling sales and hiring distributed teams across 2 markets (NA, MENA); overseeing **petabyte scale data systems** requiring custom dashboarding, ETL flows, and data lakes.

— Architected and delivered **3 production LLM platforms over the past 6 months**; achieving +26% model response quality and 3x user engagement across key verticals by applying **RAG, agentic orchestration, telemetry, and privacy-aligned AI governance** for high sensitivity verticals (PE, Finance, Health).

— Passionate about reliable, observable AI systems and high-leverage technical leadership with **several simultaneous advanced certifications and a history of public talks & industry mentorship.**

SKILLS

AI & Machine Learning	*Frameworks*	PyTorch · TensorFlow · Hugging Face · Keras · FastAPI
	Orchestration	LangChain · Autogen · CrewAI · DSPy · RAG · vLLM · Triton · OpenRouter · Ollama
	Lifecycle	MLflow · Weights & Biases · SageMaker · Bedrock · RLHF · DeepEval
	Architectures	Transformers · Neural networks · Graph models · Multimodal
Data Engineering	*Warehouses*	BigQuery · Databricks · Snowflake
	ETL	dbt · PostgreSQL · NoSQL · Kafka · Airflow · Spark · DVC
	Vector/Graph	Pinecone · Weaviate · Chroma · FAISS
	Visualisation	Tableau · Looker · NotebookLM · Jupyter
Product Analytics	*Tracking*	Amplitude · Mixpanel · Google Analytics · Adobe
	Experimentation	A/B Testing · MMMs · Causal inference
Cloud & DevOps	*Providers*	AWS · GCP · Azure
	Infrastructure	Kubernetes · Docker · Terraform
	Observability	OpenTelemetry · Datadog
	CI/CD	GitHub Actions · Vercel · GitHub · SLAs
Software Development	*Languages*	Python · TypeScript · Rust · C/CUDA · Haskell · Clojure · Julia · Vyper · Mojo · Shell
	Methods	Agile/Scrum · TDD · SDD · Trunk-based · E2E · Event-driven
	Editors	Vim · Emacs · VS Code · Antigravity
	Collaboration	Notion · Jira · Confluence · Slack

EXPERIENCE

Stealth Startup — Head of Data / Architecture (Advisory)   *San Francisco & Sydney · JUL 2025 – PRESENT*

A Y Combinator (YC) backed startup building out a next-generation data platform for enterprise and private equity markets; focused on high-volume data acquisition, sanitation, and model governance.

Responsibilities

My role pivots between strategic advisory and hands-on architecture. On the advisory side, I navigate the complex regulatory landscape of **US Government data standards (NIST 800-53)**, **Financial privacy (GLBA)**, and **Healthcare compliance (HIPAA)** to ensure our data acquisition strategies never cross the line into **Material Non-Public Information (MNPI)** risks. On the engineering side, I architect secure **Data Clean Rooms** and **Role-Based Access Control (RBAC)** systems that allow us to merge sensitive financial data (NAV, Cash Flows) with external market signals and user data without compromising privacy or security. I advise a hybrid team of Data Engineers and Governance Analysts, ensuring our supply chain is resilient, audit-ready, and capable of passing rigorous **SOC 2 Type II** and **FedRAMP** readiness assessments.

Key Contributions

— Designed and implemented a "Financial-Grade" Data Sanitation & Validation Framework, integrating automated quality checks (nulls, drift, outliers) and **PII/PHI masking** to ensure compliance with **GDPR**, **CCPA**, and **GLBA**.

— Established the firm's Data Governance and Model Risk Management policy, mirroring **Tier-1 Banking standards (BCBS 239)** to ensure auditability, lineage tracking, and ethical AI usage, specifically for **Fair Lending** and **Marketing Bias** mitigation.

— Deployed **Data Clean Room** architectures (leveraging Snowflake and AWS Clean Rooms) to securely join proprietary **Portfolio Company (PortCo)** CRM data with third-party enrichment sources; focusing on the secure acquisition of **Alternative Data** sets (credit card transaction panels, geolocation, . . .) cleared of MNPI risks; working directly via NDAs, SLAs, and technical sales to create cohesive long term guidelines.

Technology Landscape

OneTrust · BigID · Immuta · AWS GovCloud · OpenPolicy Agent · NIST 800-53 Frameworks · AWS (S3, Glue, EMR) · Unity Catalog · Pandas · PySpark · Monte Carlo · Soda · Bloomberg API · FactSet · Preqin · PitchBook · Scrapy · Selenium

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Casper Studios — AI Engineering Lead
New York · APR 2025 – AUG 2025

A boutique applied-AI studio developing real-time LLM & RAG solutions for enterprises, creators, and private equity clients across NA and APAC. Specialized in full research to product consulting, with strategy, design and engineering in-house.

Responsibilities

As an AI Engineering Lead at **Casper Studios**, an AI product studio founded by alumni from LinkedIn, Bain, and Microsoft, I led full-lifecycle generative-AI initiatives from **research to proof-of-concept to production deployment** across **hybrid AWS and GCP environments**. I partnered directly with **C-level executives, creators and private-equity stakeholders** to define AI roadmaps, build evaluation frameworks, design scalable architectures, design telemetry pipelines and simplify cost-governance and deliver measurable business impact through **retrieval-augmented generation (RAG)**, **voice LLMs**, and **autonomous agents**.

Key Contributions

— Lead research, prototyping, and deployment of **generative and retrieval-augmented systems** for both client and internal incubation projects with a focus on **LLM-based voice and agentic systems** via **LiveKit** for real-time interaction and **Claude Code / OpenAI Agents SDK** for reasoning and tool-use.

— Define **AI strategy and delivery roadmaps** in collaboration with founders, private-equity sponsors, and product leadership to align technical outcomes with margin and growth objectives; driving **cross-functional collaboration** across project management, design, and engineering to ensure delivery of scalable, maintainable, and secure AI products.

— **Architected a multi-model evaluation harness** using synthetic and human feedback loops, improving model response quality by **26%** and increasing end-user engagement **3x**, and **reducing cloud inference cost by 27–40%** through telemetry optimization, privacy guardrails, and adaptive workload routing.

— Oversaw and mentored multi-disciplinary teams spanning **product management, UX design, frontend / backend engineering, and MLOps** to ensure seamless integration of AI systems into live products.

Technology Landscape

Moonshot Kimi · Vercel · BlueJay · LiveKit · Figma · CI/CD · Cursor · Windsurf · Codex · ConvexDB · Anthropic Claude API · Gemini API · Groq · Modal · Instructor · LangGraph · Langfuse

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Interpublic Group (Kinesso) — Senior Director, Data Strategy
Toronto & Montreal · JAN 2020 – MAR 2024

Kinesso is the technology-driven performance agency at the heart of IPG Mediabrands, unifying data, technology, activation and creative in one seamless system that connects first-party data, cloud services and programmatic infrastructure under one global team.

Responsibilities

As the local lead for the global Kinesso Audience Solutions (KAS) business line within IPG's data-strategy division, spanning media, measurement and AI activation from a nascent practice to supporting over **30 agency partners** across 2 market zones (NA, MENA) to one of the fastest growing ventures in IPG Canada's history by actively managing a distributed team of 5 across three countries (Canada, Colombia, USA). I also represented IPG on the **IAB Canada Data Council** to help shape regulatory standards for data-driven marketing at a national level.

Key Contributions

— Actively pursued enterprise client engagements to grow clients from **3 to 35+**, until the unit became the **primary growth driver** for Kinesso Toronto's data capability, **accounting for approximately 70% of its 2024 performance**.

— Scaled business line revenue **with triple digit growth YoY** by building and selling a **privacy-compliant AI-audience framework** adopted enterprise-wide across IPG, reducing data-activation latency and risk exposure.
— Enabled **9+ agency network teams** (e.g., UM, Initiative, Mediahub, FCB, McCann, Cadreon/Mattekind) to adopt standardised data driven audience products and AI frameworks.
— Delivered 13 case studies demonstrating **4x ROAS** and **1.5x CTR** uplift via AI-enabled audience solutions, focusing on data storytelling via Tableau visualisations and Powerpoint decks to simplify insights and technologies.
— Negotiated and operationalised service-level agreements (SLAs) with major data-platform partners (Moneris, Nielsen, Lotame) to enforce governance and improve time-to-activation.

Vertical & Client Impact

Media & Entertainment — *Sony (Pictures & Music), Nintendo, LEGO, Destination Canada, Carlsberg, Skip the Dishes*

- Engineered scalable, AI-segmented audience frameworks across Meta, Amazon Ads, TikTok, The Trade Desk, driving **unprecedented changes in Video Completion Rates and offsite Traffic**.
- Built global media-activation dashboards in Looker, Tableau and Mixpanel for **200+ users across agency teams**, standardising performance measurement across regions.

Consumer Packaged Goods (CPG) — *Johnson & Johnson, Hershey's, Energizer, Walmart, Sobeys, Exxon Mobil*

- Negotiated data-governance SLAs with key vendors (Moneris, Lotame), which **improved variable availability by ~114%** and reduced data latency while maintaining quality.
- Created 13 published case studies with CPG clients showing consistent Return on Ad Spend (ROAS) and Click-Through Rate (CTR) improvements, establishing internal proof-points for global expansion.

Finance & Pharma — *BMO / BMO Harris, Pfizer, Roche Pharmaceuticals, Allstate Insurance*

- Advised on multi-segmentation data pipeline leveraging Acxiom Infobase and The Trade Desk, overseeing over **US $12 M in media value** across clients.
- Built out bespoke data retention strategies to allow for the successful merging of sensitive 1PD (1st party data) and 3PD (3rd party data) in real-time applications with legal oversight to ensure **GDPR and HIPAA compliance**.

Government & Public Sector — *Government of Canada, UNICEF*

- Delivered a national-scale data-activation infrastructure during the Covid-19 pandemic, enabling government agencies to reach endangered populations rapidly.
- Worked with federal agencies on advanced segmentation to author benchmarking reports used by senators and industry leaders to influence AI/media-governance policy.

Technology Landscape

Delta Lake · Hootsuite · Google Marketing Platform (DV360, CM360, GA4, Google Ad Manager, Ads Data Hub) · Twitter/X Ads · Amazon Ads · Amazon Marketing Cloud · The Trade Desk · Xandr · Yahoo DSP · Meta Ads · TikTok Ads · Pinterest Ads · Acxiom ID Graph · LiveRamp RampID · Nielsen DAR/DCR · Comscore · TrustArc · Brandwatch · Sprinklr · Talkwalker · Meltwater · AWS Elastic BeanStalk · Power BI

Lake Finance — Founder & CTO
Toronto · JAN 2018 – DEC 2020

Lake Finance was a blockchain-native fintech startup I founded in 2018 focused on AI-powered portfolio management and decentralized exchange (DEX) infrastructure, which I sold to RBC / WonderFi in 2020.

Responsibilities

I **built and exited a DeFi startup valued at US$1.6 M** by leveraging university funding, government grants and consulting revenue. Secured the initial **seed funding by graduating from the University of Toronto's Creative Destruction Lab's inaugural Blockchain-AI cohort**. Facilitated the exit by building flagship products that lead the industry in enterprise support and customer growth.

Key Contributions

— Launched Hydra AI (a **portfolio engine using evolutionary algorithms, Bayesian Statistics alongside physics-inspired volatility heuristics**) built in Python and Haskell, **processing US$120K of live capital, hunting black-swan volatility** and conditional returns.
— Delivered Lake Trade DEX on 0x V2 protocol, **onboarded 500+ daily active traders in Q1 with open-source community traction**, with **enterprise-grade APIs** for institutional partners.
— Grew team from **2 co-founders to 11 across engineering/finance/marketing/design**, simultaneously managing hiring, recruitment, mentorship, and sales.
— Delivered **additional cash-flow via partnerships and consulting revenue** by mentoring other business and startups in the nascent blockchain space.

— **Directed company-wide strategy from product R&D through commercialization and exit**, including fundraising, grant negotiation, team hiring and operational scale.

Technology Landscape

Web3-JS · IPFS · Bitcoin · Lightning Networks · Ethereum · 0x V2 Protocol · Serverless architecture (AWS Lambda, DynamoDB) · MongoDB · Redis · TensorFlow · PyTorch · Evolutionary Algorithms (NEAT) · Bayesian Statistics (BlackJax) · LightGBM · REST/GraphQL APIs · RabbitMQ · 0x mesh-network · Binance · Coinbase · Metamask · Backtrader · Zero-knowledge Proofs

EDUCATION

University of British Columbia — Sauder School of Business

Bachelor of Commerce (Finance & Marketing with Minor in Economics)

Stanford University — School of Engineering

AI for Professionals (Reinforcement Learning, XCS234, Machine Learning with Graphs XCS224W)

Massachusetts Institute of Technology — Sloan Executive Education

Artificial Intelligence: Implications for Business Strategy

Harvard University — HBS Executive Education

Certificate of Online Readiness

Udacity

AI, Deep Learning, Web Development Nanodegrees

CERTIFICATIONS

Amazon	Solutions Architect – Associate '21 Developer – Associate '21 SysOps – Associate '21
Microsoft	Azure AI Engineer – Associate '20 Azure Data Scientist – Associate '22
Google	GA Web Analytics GMP Reseller
Meta	Marketing Science Professional
CSI	Canadian Securities Course (CSC)

INTERESTS

International Travel	**(5/7 continents so far)** Grew up in Ghana, went on school trips to South Africa, Germany & China, travelled through Greece, France & Italy in 2024, most recently Singapore & Bali, planning Mexico and Brazil next summer.
Animal Conservation	Childhood experience working with zoos; currently an active speaker and investor supporting tiger conservation reserves & advocate for elephant welfare
Open Source Software	Recently published `awesome-ai-eval` and `claude-historian` to improve functionality of Claude Code & OpenAI Codex; previous contributor to the Ethereum Foundation and grant recipient from 0x Protocol