# ARI KAMLANI

# AI/ML STRATEGY SYSTEMS ARCHITECT PRINCIPAL DATA SCIENTIST

415.926.1221



akamlani@gmail.com



arikamlani.com



linkedin.com/in/akamlani



Manhattan, NY



#### EXPERTISE

Artificial Intelligence (AI)

Machine Learning (ML)

Responsible Al

DataOps, MLOps, Infrastructure

Innovation & Experimentation

**Product & Platform Strategy** 

Strategic Storytelling

Design Thinking

Agile Methodology

## **EDUCATION**

Digital Strategy Section4 Business Strategy

Product Management
Product School

Big Data Strategy
Design Thinking
Rutgers Innovation Center

Credits Forward / MS Data Science

Data ScienceTech Institute

Immersive, Data Science **Galvanize** 

BS Electrical Engineering **Lehigh University** 

#### SUMMARY

Accomplished AI/ML technology leader skilled in ideating, researching, executing, and scaling out strategic early-stage responsible and robust machine intelligent systems and enterprise global program initiatives. Recognized as a creative cross-functional leader for identifying new innovative R&D opportunities, driving data-informed decision making, and delivering on high value propositions, while continually minimizing risk.

#### EXPERIENCE

# Beyond Limits | Manhattan, NY

2021 - Present

Senior AI Strategist and Technology Systems Architect – Office of CTO (OCTO)

Advance AI R&D portfolio growth investments, construct processes to scale the organization, collaborate with C-Suite on future R&D innovation horizon opportunities

- Lead AI PaaS ecosystem strategy, systems architecture, requirements, and roadmap planning for Hybrid AI, pairing data-centric ML with cognitive symbolic knowledge constraint reasoning with explainable human audit trails for decision support
- Identify key AI PaaS scenarios and benefits, designing and architecting capabilities and IP to mitigate incident violations and exposure via higher-order KB concepts, strengthening model integrity behavior, and reducing time to corrective actions
- Execute client discovery sessions, craft SOW proposals, transform AI model design, systems architecture, and implementation for new innovative opportunities across healthcare monitoring edge vision object trajectory tracking, energy efficiency savings in HVAC systems, and patient clinical preventive care risk stratification

# ThoughtWorks | Manhattan, NY

2018 - 2020

Principal Data Scientist – Professional Services (PS)

Shape machine intelligent portfolio pursuits, collaborate on leading AI emerging trends, improve processes for strategic project acquisition, and lead client discovery workshops

- Led the evolution of AI multimodal semantic search ranking microsite experiences, supplemented by content governance, query disambiguation, and KB entity linking
- Established responsible suites to improve model robustness, group fairness and equal opportunity disparities with guardrails, decision judgement layers, and behavioral testing per information retrieval and data journalism compliant registries
- Optimized inefficiencies in supply chain lubricant inventory order fulfillment, forecasting safety stock demand and truck packing convex solver constraints

# Skymind / Pathmind | San Francisco, CA

2017 - 2019

Deep Learning Engineer Consultant - Product and Solutions Architecture

Create and champion deep learning offerings (TensorFlow, PyTorch, DL4J) from research to production across text, vision, and reinforcement simulation technologies

- Enabled business development in partnership engagements, benchmarking optimizations (Intel Xeon 2<sup>nd</sup> Gen with MKL), and enterprise L&D training workshops
- Facilitated the reinforcement learning (RLlib, Ray) PaaS architecture of decision agents for training and serving policies of simulation environments (AnyLogic)
- Improved conversational customer dialogue engines to semantically match query intents via distilled Transformer architectures and object detection pipelines to characterize poor welding joint robotic fusion behavior in an assembly line

#### **TECHNOLOGIES**

Languages: Python, R, SQL, Scala, Java, C/C++, ARM, JS, HTML, CSS

**Environments**: Jupyter, Colab, PyCharm, VSCode, RStudio, Zeppelin, IntelliJ, Eclipse

Cloud: AWS, Azure, GCP

ML Ecosystems: PyTorch, TensorFlow, DL4J, Scikit-learn, Hugging Face, Ray/RLlib, Gym, Apache Spark, spaCy, OpenCV, Optuna

MLOps: MLflow, Airflow, Tecton Feast, Docker, FastAPI, Prometheus/Grafana

Databases: Elasticsearch, Solr, MongoDB, Cassandra, Redis, PostgreSQL, Snowflake, Neo4J, MySQL, SQLite

**Apps & Visualization:** Streamlit, Tableau, Kibana, Grafana

**GitOps:** Git, Bitbucket, Perforce, ClearCase, SVN, PVCS, Travis, Jenkins, GoCD, GitHub Actions

**PM:** Jira, Pivotal Tracker, Aha, Basecamp, Bugzilla, Doors

Collaborative Tooling: Miro, Confluence, Notion, Airtable

#### **PATENTS**

Device Localization based on a Learning Model (2017)

Interference Control in Wireless Communications (2016)

### EXPERIENCE (CONTINUED)

#### JP Morgan Chase | Manhattan, NY

Data Scientist – Digital Intelligence, Consumer and Community Banking (CCB)

Strengthen Chase personalization ML experiences and platforms, delivering scalable recommendation models and insights across their regulated governed lifecycle

- Crafted implicit personalized ranking models serving branded loyalty offers to customers per redemption history and spending propensity card transactions
- Partnered with business units to deliver Chase card personalized targeted ad FOMO campaigns based on segmented cash flow spending behavior models
- Launched the suggestive nudge cash flow savings and investment offering, implemented by scalable neighborhood embedding proximity (PLY) models

## Techstars | Manhattan, NY

2017 - 2017

2017 - 2018

Technologist in Residence (TIR) – Venture Accelerator, IoT Division

Advise and facilitate the technology evolution of several seed entrepreneurial startup ventures in acquiring their next round of funding and advancing their roadmap offerings

- Launched multiple starter kits for startups to transform their ML technology designs, e.g., from single node to distributive compute, augmented training data with synthetic simulation data, mocked experimentation scenarios and evaluations
- Scaled data connector services to accelerate concurrent onboarding and pilot execution via transforming brittle rule-based greedy methods towards a suite of enriched feature vectors with industrial domain knowledge encoding

# Otto (formerly Tyto Life) | San Mateo, CA

2017 - 2017

Data Scientist Consultant – Products Division, Home Automation

Head the design, data acquisition, measurement, and pedestrian pattern detection for keyless secure door access control in residential and commercial environments

- Reduced false positive (FP) tracking detections via denoising RF sensory inputs (BLE, Radar) deployed as on-device ARM target embedded firmware
- Established a new statistical modeling pipeline to diagnose and improve upon the industrial factory unit yield production and factor assembly labor productivity rates

#### **Prior Work Experiences**

| • | Inria, Research Assistant – Spatio-Temporal Activity Recognition | 2016 – 2016 |
|---|--|-------------|
| • | Nagra, Software Expert – Group Incubation & Innovation           | 2012 – 2015 |
| • | Sportvision, Special Projects – Office of CTO, NASCAR            | 2011 – 2012 |
| • | Broadcom, Principal Engineer – Systems Engineering               | 2011 – 2011 |
| • | Qualcomm, Staff Engineer – Computing Enablement                  | 2007 – 2010 |
| • | TapRoot Systems, Principal Engineer – Mobile Products & PS       | 2003 – 2007 |
| • | Panasonic Mobile, Senior Engineer – Mobile Platforms             | 2000 – 2003 |
| • | Verizon Wireless, RF Engineer – RF Systems Performance           | 1999 – 2000 |

#### **Professional Affiliations**

| • | Packt, Content Reviewer – Interpretable & Fair ML      | 2022 – Present |
|---|--|----------------|
| • | Manning Publications, Content Advisor – Bias in ML     | 2020 – Present |
| • | IEEE SA, Committee Member - Ethics of A/IS             | 2020 - 2022    |
| • | Rutgers Innovation, Advisory Board - Big Data Strategy | 2018 – 2020    |