ARI KAMLANI
Data Scientist, ML Engineer, Technology Strategist
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Accomplished Machine Learning (ML) centric professional skilled in delivering strategic early-stage and large-scale project initiatives, aligning technology delivery with business strategy objectives. Results focused thought leader, with expertise spanning ML strategy, scalable machine intelligence algorithms and infrastructure, cross-functional team leadership, and partner relationships. Experienced across multiple domains and industries, including Natural Language Processing (NLP), Computer Vision (CV), and Simulation Modeling via Reinforcement Learning.

EXPERIENCE

ThoughtWorks | Manhattan, NY   *Sep 2018 – Jan 2020*
Principal Data Scientist – Professional Services (PS)
Shape portfolio offerings and capabilities in machine intelligent solutions and infrastructure, accelerate business opportunities per early-stage inbound pursuits, and provide clients with quality strategic scalable ML deliverables
- Facilitate data and machine learning strategy, design, architecture, and technology stack selection in modernizing customer data initiatives in evolving their product roadmap maturity
- Lead strategic developments in improving and extending natural language enterprise intranet search relevancy ranked queries incorporating semantic embedding vector analysis, entity extraction, and query disambiguation, accompanied with facilitating content governance for monitoring new onboarded data content
- Develop contextual machine intelligent models in document classification and distributional topic identification per use cases within home mortgage loan claims, legal case briefs, and police misconduct allegation complaints
- Advance Supply Chain Lubricant product inventory optimization stock replenishment decision modeling via temporal demand forecasting of safety stock, and truck packing and delivery optimization solver constraints
- Co-develop numerous client discovery strategy workshops, guide technical evaluation and acquisition assessments, and align professional service (PS) delivery engagements with business outcome expectations

Pathmind (formerly Skymind) | San Francisco, CA   *May 2017 – Oct 2019*
Deep Learning Engineer Consultant – Solutions Architecture
Advance the development and maturity of Pathmind Deep Reinforcement Learning service (RiseLab RLlib/Ray, OpenAI Gym, AnyLogic Environment Simulator), Deep Learning for Java (DL4J) Algorithm suite, and Skymind Intelligence Layer (SKIL) Deep Learning Model Infrastructure Platform
- Facilitate business development, technical solutions architecture client partnership engagements, and partner benchmarking optimizations (Intel Xeon) to improve product development and industry technology adoption
- Migrate an NLP conversational dialogue system from a Seq2Seq BiLSTM to a fine-tuned Transformer distilled architecture (BERT) with downstream models decoding high cardinality utterances to manageable intents
- Develop feasibility studies and POCs (DL4J) per industrial automotive multimodal computer vision welding detection scenarios to characterize poor welding joint performance operated by robotic arm movements
- Improve Image Captioning network architecture models (TensorFlow, Keras, PyTorch via ONNX) to match natural language query intents to description rankings, imported and served natively (JVM) by SKIL
- Present and create tailored workshop content for enterprise customers, industry partners, and public events

JP Morgan Chase (JPMC) | Manhattan, NY   *Nov 2017 – Aug 2018*
Data Scientist – Digital Intelligence, Consumer and Community Banking (CCB)
Enhance the consumer personalization experience and recommended insights for Chase Products and Services across the full regulated and governed modeling lifecycle, operating at large distributed scale
- Develop scalable implicit ranking recommendation ML Tuned Models (Scala, Apache Spark, ML Pipelines) for *Chase Ultimate Rewards* encompassing customer redemptions and spending propensity patterns data
- Partner with line of businesses (LOB's) to deliver personalized insights, launching and monitoring deployed Chase card acquisition FOMO message underwriting and targeted Ad spending-based *Campaigns*
- Improve the suggestive *Nudges* for *Savings Acquisition and Engagement* towards customer financial health based on custom neighborhood models at distributive scale (Apache Spark)

Techstars | Manhattan, NY   *July 2017 – Oct 2017*
Technologist in Residence (TIR) – Venture Accelerator, IOT Division
Advise several seed entrepreneurial startup ventures in advancing their product pilot IoT & M2M designs
- Advance startup venture product and service roadmap offerings, improve solutions to accelerate the execution across multiple concurrent customer pilots, and reduce technology and performance bottleneck pain points
- Advise companies in systems architecture, benchmarking and scaling their existing solution with more modern distributed data technology computational solutions (Apache Spark, Apache Kafka)
- Lead technical venture mentoring and brainstorming sessions in technology adoption and design hurdles

Otto LLC (formerly Tyto Life) | San Mateo, CA   *Mar 2017 – Jun 2017*
Data Scientist & Engineering Advisor/Consultant – Product Division
Design the data acquisition, measurement, and pedestrian pattern detection for the keyless secure door access control in residential and corporate environments
- Develop Kalman filter RF denoising sensory input (BLE, Radar) and ML detection algorithms for pedestrian access, via off-device (Python) training and on-device deployment firmware (C) via ARM Cortex-M CMSIS DSP
- Perform aggregate statistical analysis insights for factory unit yield production and productivity rates

Inria Research Institute | Sophia Antipolis, France   *Jan 2016 – Apr 2016*
Research Assistant – STARS (Spatio-Temporal Activity Recognition Systems) Research Team
Advance the research of computer vision semantic scene interpretation of healthcare diagnosis for the elderly
- Apply both traditional computer vision and deep learning CNN architectures per semantic segmentation classification and ontology event activity scene understanding recognition representations for analysis
- Enhance ontology event scenario recognition models resulting in improved accuracy detection, reducing false positives via accounting for relaxed temporal constraints and prior contextual states
- Improve object detection recognition outcomes via model architecture fine-tuning and optimization

Nagra Kudelski Group | San Francisco, CA   *Sep 2012 – May 2015*
Software Expert – Group Innovation & Incubation Research Team
Advance Technology and Application innovation for business units, pitching new special project research directives to the executive board, prototype solutions for product feasibility and adoption for portfolio value-add
- Initiate proposals per Intellectual Property (IP), creation of patents, and formation of new business units
- Formulate new strategic partner vendor relationships to strengthen Digital TV and Public Access sectors
- Lead low-cost RFID BAP long-range distance pedestrian detection (100m+) pilots in theme parks and ski resorts

Sportvision | Mountain View, CA   *Oct 2011 – Apr 2012*
Special Projects/Embedded Software Consultant – Office of CTO, Motorsports Division
Boost robustness and accuracy detection for the NASCAR truck series broadcast media vehicle and sensory tracking measurement in migration from computer vision to GPS IMU localization during challenging weather conditions
- Successfully delivered a customized Embedded Linux Kernel and Root Filesystem (RFS) distribution to improve stability and performance of predecessor system, notably reducing system crashes, latency, and boot-time
- Develop new subsystems for critical health diagnostic detection and OTA image upgrades during race day

Broadcom | Sunnyvale, CA   *Feb 2011 – Oct 2011*
Principal Engineer – Systems Engineering, Cellular Division
Design and architect systems software for the WiMAX and LTE radio network mobile reference designs
- Evolve the mobile platform processor architecture, requirements and integration of Voice over LTE (VoLTE) radio stack into Broadcom reference designs and customer product roadmaps
- Lead multisite WiMAX Certification client (RIM) OS platform migration architecture efforts from Linux to QNX

Qualcomm | Raleigh, NC   *Aug 2007 – Jan 2010*
Staff Engineer – Computing & Consumer Division
Improve the launch, development, and engineering releases of Windows Mobile board support package (BSP)
Snapdragon ARM Cortex based reference designs
- Initiate cross-disciplinary technology reviews to assess and improve BSP reference architecture designs
- Enhance systems performance initiatives, further optimizing boot time, performance monitors, and latency
- Advise OEMs in reference design architecture, feature development, and Windows Mobile Logo Certification

Additional Prior Experiences:
TapRoot Systems (Morrisville, NC), Principal Engineer – Mobile Products & Services   *Jul 2003 – Aug 2007*
Panasonic Mobile Communications (Suwanee, GA), Senior Engineer – Mobile Platforms   *Apr 2000 – Jul 2003*
Verizon Wireless (Plymouth Meeting, PA), RF Engineer – RF Systems Performance   *Sep 1999 – Feb 2000*

ADVISORY BOARDS
Big Data Professional Program, Rutgers University Center of Innovation Education   *Oct 2018 – Jan 2020*

PROFESSIONAL AFFILIATIONS
The Institute for Ethical AI & Machine Learning   *Oct 2019 – Present*

PATENTS
- Interference Control in Wireless Communication; United States 10075963   *May 2016*
- Device Localization Based on a Learning Model; United States 9681270   *June 2017*

EDUCATION AND CREDENTIALS
Design Thinking Professional Program, Rutgers Innovation (New Brunswick, NJ)   *June 2019*
Big Data Strategy Professional Program, Rutgers Innovation (New Brunswick, NJ)   *May 2019*
Self-Driving Car (SDC) Nanodegree, Udacity (Online) – 1+ Terms   *Nov 2016 – Apr 2017*
Data Science Immersive Bootcamp, Galvanize (San Francisco, CA)   *Jun 2016 – Aug 2016*
MS Data Science, Data ScienceTech Institute (Paris, France) – Select Courses   *Oct 2015 – May 2016*
B.S. Electrical Engineering (EE), Lehigh University (Bethlehem, PA)   *Aug 1995 – May 1999*

TECHNICAL SKILLS
- TensorFlow, PyTorch, Keras, DL4J, ONNX, RLlib, OpenGym
- Scikit-learn, Spacy, NLTK, Gensim, OpenNLP, OpenCV, FBProphet
- Elasticsearch (ELK), Apache Solr, Apache Lucene
- Jupyter, Colab, Zeppelin, RStudio, IntelliJ, Eclipse, PyCharm, VSCode
- MLflow, DVC, Apache Airflow, Apache Oozie, Docker

- Cassandra, MongoDB, Postgres, MySQL, Neo4J
- IBM Cloud, IBM Rational, SAS Enterprise, Databricks
- Apache Spark, Riselab Ray, Hadoop, Hive
- Apache Kafka, Spark Streaming, Cloud PubSub
- Amazon AWS, Google GCP, MSFT Azure

- Python, Scala, Java, R, SQL, C, C++, JS, Node, D3, HTML, CSS
- Git, Perforce, Clearcase, SVN, PVCS, Jira, Bugzilla, Pivotal
- Bazel, Maven, SBT, Make, Travis CI, Jenkins, GoCD
- Tableau, Kibana, Grafana, Prometheus
- Linux, QNX, Android, Windows Phone