ARI KAMLANI

DATA SCIENTIST | PRINCIPAL ENGINEER
@akamlani ❖ arikamlani.com
(415) 926-1221 ✉ akamlani@gmail.com
San Francisco, CA

Data Scientist, Principal Engineer skilled in delivering strategic large-scale and early-stage projects, with particular attention to alleviating user and technology pain points. Experienced in driving new strategic business initiatives, delivering R&D POC designs, and developing client/vendor engagements. Proficient in building end-to-end analytical machine learning pipelines, comprised of processing both structured and unstructured data.

TECHNICAL SKILLS

Enterprise/Tools
- Apache Spark, Hadoop
- AWS EC2, EMR, S3
- SAS Enterprise Miner, Visual Analytics
- IBM BigInsights, SPSS, Bluemix, Watson
- Git, Perforce, ClearCase, SVN, PVCS
- Pivotal Tracker, Doors, Bugzilla

Data Analysis/Frameworks
- Postgres, MySQL, SQLite, MongoDB
- Jupyter, Zeppelin, RStudio, Rodeo
- IPython, IntelliJ, Spyder, Eclipse
- Sklearn, NLTK, GraphLab, OpenCV
- TensorFlow, Keras
- D3.js, p5.js, Plotly

Programming/Platforms
- Scala, Python, R, SQL
- C, C++, ARM, UML, OCL
- HTML, CSS, Markdown
- JavaScript, Node.js
- Bootstrap, Jekyll
- Linux, QNX, WinCE

PATENTS

- Interference Control in Wireless Communication; United States 9,357,404 | Issued — *May 2016*
- Device Localization Based on a Learning Model; United States 14/311,077 | Filed — *Jun 2014*

EDUCATION

Udacity Self-Driving Car (SDC) | Online | Nanodegree Program — *Nov 2016 – Sep 2017*
Galvanize | San Francisco, CA | Data Science Immersive Bootcamp — *Jun 2016 – Aug 2016*
Data ScienceTech Institute (DSTI) | Paris, France | Part-Time Data Scientist Program — *Oct 2015 – May 2016*
General Assembly | San Francisco, CA | Part-Time Data Science Program — *Oct 2014 – Dec 2014*
Lehigh University | Bethlehem, PA | B.S. Electrical Engineering (EE) — *Aug 1995 – May 1999*

PROJECTS

Self-Driving Cars
Autonomous driving projects per computer vision perception and sensor fusion environment detection and tracking, including the use of frameworks such as such as TensorFlow, Keras and OpenCV on GPUs.

Cooper Hewitt Smithsonian Design Museum | Visitor Tracking Behavior Patterns
Developed an analytical pipeline via Apache Spark GraphX/GraphFrames and hierarchical clustering algorithms to provide the museum recommendations and insights into visitor behavior tracking patterns and temporal exhibition events to improve visitor experience

EXPERIENCE

Tyto | San Mateo, CA — *Mar 2017 – Present*
Data Scientist & Engineering Advisor/Consultant – Product Division
Responsible for enhancing access control consumer experience for the Connected Home
- Drive data acquisition, measurement, and data science strategy for streaming sensory (BLE, Radar) data across a variety of unit installation environments. Initial analysis performed off-device in Python while deployment is implemented on-device in firmware in C via use of ARM Cortex-M (CMSIS) DSP library.
- Improve pedestrian region classification via denoising and smoothing RF sensory inputs
- Provide ETL and aggregate statistical analysis per 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

Responsible for improving Computer Vision semantic scene interpretations per healthcare diagnosis for the elderly

- Applied traditional Computer Vision techniques and Deep Learning CNN architectures per segmented region classifications for semantic ontology event activity recognition representations and analysis
- Enhanced event scenario recognition models resulting in improved accuracy detection, reducing false positives via accounting for relaxed temporal constraints and prior contextual states
- Improved classification object region inference via model architecture fine-tuning and optimization

Nagra Kudelski Group | San Francisco, CA *Sep 2012 – May 2015*

Software Expert – Group Innovation & Incubation

Responsible for future technology & application advancements within an agile R&D Innovation Group

- Initiated proposals per Intellectual Property (IP), creation of patents, and formation of new business units
- Successfully executed special project research technology directives to assess portfolio value-add
- Formulated new strategic partner vendor relationships to strengthen Digital TV and Public Access sectors
- Led Proof of Concept (POC) designs centered on long-range distance detection, achieving similar results to Active RFID (100m+) via a disposable low cost Battery-Assisted Passive (BAP) RFID design

Sportvision | Mountain View, CA *Oct 2011 – Apr 2012*

Special Projects/Embedded Software Consultant – Office of CTO, Motorsports Division

Responsible for advising enhancements of NASCAR Trucks vehicle tracking prototype per broadcast media

- Advised the vehicle tracking and sensory measurement migration from Computer Vision detection to GPS IMU enabled localization to improve accuracy during challenging weather conditions
- Successfully delivered customized Embedded Linux Kernel and Root Filesystem (RFS) distribution to improve stability and performance of predecessor system, notably reducing crashes, latency, and boot-time
- Introduced new mechanisms per critical health diagnostic detection and image upgrades during race day

Broadcom | Sunnyvale, CA *Feb 2011 – Oct 2011*

Principal Engineer – Systems Engineering, Cellular Division

Responsible for WiMAX and LTE radio network driver systems software architecture mobile reference designs

- Directed technology teams per mobile platform processor architectures, requirements and integration of vendor Voice over LTE (VoLTE) stack in aligning with roadmap features
- Facilitated multi-site coordination per customer (RIM) migration platform architecture from Linux to QNX to achieve successful WiMAX Certification

Qualcomm | Raleigh, NC *Aug 2007 – Jan 2010*

Staff Engineer – Computing & Consumer Division

Responsible for Windows Mobile board support package (BSP) Snapdragon ARM Cortex based reference designs

- Initiated cross-disciplinary multi-site technology reviews to assess processor requirements, identify next generation features, and improve upon current reference design implementations
- Advised OEMs in reference design architecture, custom BSP feature development, and best practices in achieving Third-Party Windows Mobile OS Logo Certification
- Enhanced systems performance initiatives, further optimizing boot time, performance monitors, and latency

Previous Experiences:

TapRoot Systems | Morrisville, NC | Principal Engineer/Lead – 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 – Systems Performance *Sep 1999 – Feb 2000*