ARI KAMLANI
Data Scientist | Principal Engineer
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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	*Data Analysis/Frameworks*	*Programming/Platforms*
▪ Apache Spark, Hadoop	▪ Postgres, MySQL, SQLite, MongoDB	▪ Python, R, Scala, Java
▪ AWS EC2, EMR, S3	▪ Jupyter, Zeppelin, RStudio, Rodeo	▪ SQL, C, C++, ARM, UML
▪ SAS Enterprise Miner, Visual Analytics	▪ IntelliJ, Eclipse, Spyder, IPython	▪ HTML, CSS, Markdown
▪ IBM BigInsights, SPSS, Bluemix, Watson	▪ Sklearn, NLTK, GraphLab, OpenCV	▪ JavaScript, Node.js
▪ Git, Perforce, ClearCase, SVN, PVCS	▪ TensorFlow, Keras, DL4J	▪ Bootstrap, Jekyll
▪ Pivotal Tracker, Doors, Bugzilla	▪ D3.js, p5.js, Plotly	▪ 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/CERTIFICATIONS

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 | MS Data Science (Select Courses)	*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 | Udacity
Autonomous driving projects per computer vision perception, sensor fusion environment detection and tracking
Visitor Tracking Behavior Patterns | Cooper Hewitt Smithsonian Design Museum
Provide the museum recommendations into visitor behavior tracking patterns and temporal exhibition events via an analytic pipeline consisting of Apache Spark GraphX/GraphFrames and hierarchical clustering algorithms

EXPERIENCE

Skymind | San Francisco, CA   *May 2017 – Present*
Deep Learning Consultant
Responsible for improving the Deep Learning for Java (DL4J) Framework
▪ Act as an advisor in improving the DL4J Stack and Public/Corporate Workshop content
▪ Present enhanced workshops of the DL4J Framework and Distributed Multi-GPU Apache Spark content

Tyto | San Mateo, CA   *Mar 2017 – Present*
Data Scientist & Engineering Advisor/Consultant – Product Division
Responsible for enhancing the Connected Home Access Control consumer experience
▪ Drive data acquisition, measurement, and data science strategy for sensor (BLE, Radar) data across a variety of unit installation environments. Initial analysis is performed off-device (Python) while deployment is implemented on-device in firmware (C) via use of ARM Cortex-M (CMSIS) DSP library.
▪ Improve device/pedestrian detection confidence 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

Additional Prior 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*