## JACOB CREED

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#### **SUMMARY**

Technology leader with a proven ability to learn and apply new technologies at all points in a company's lifecycle. 12+ years experience designing and developing solutions, while leading distributed on and offshore teams in Agile, SaaS-oriented environments.

#### **CAREER HISTORY**

# VP Engineering AisleFire

#### **2016 - Present**

AisleFire is an information and marketing services company that leverages location-sensing and IoT technologies to enable new operations, marketing, and insights solutions for brick & mortar retailers and their CPG partners.

Hired as one of the first two employees to bring retail data and back-end architecture expertise to VC-backed startup. Promoted to VP Engineering with primary responsibility for managing and growing the distributed engineering team tasked with building and delivering mobile applications using native iOS and Android, Cordova, and Ionic, cloud services, infrastructure, IoT sensor systems, and analytic solutions.

- Drove the effort to convert prototype and pilot-focused projects into market-ready solutions.
  - Led mobile team in major architectural revisions to enhance stability, reliability, and reusability of internal frameworks. The effort included updates to data models, transport layer, and isolation of sensor data collection.
  - Led cloud team in the transition from single-application monolith to scalable microservices platform utilizing Spring Boot, Spring Cloud, RabbitMQ and Kafka messaging services, and deployed on a Pivotal Cloud Foundry PaaS.
- Grew team from 4 to 8 FTE positions including both internal and external resources.
- Worked closely with data science team to enhance data pipeline, location engine, and machine learning efforts.
- Led design and development of applications to support major R&D efforts on next-generation location sensing.
- Partnered with Product team to define and build customer-facing reporting dashboards and delivery mechanism.
- Responsible for evaluation and management of external technology service providers.
- Partnered with key stakeholders across the enterprise, including business/product/marketing and external clients to develop requirements, set priorities, and ensure compliance with strict security and vendor review process.

### **Applications Architect**

#### **AisleFire**

## 2014 - 2016

- Primary responsibility for the design, architecture, and implementation of AisleFire's web services and API platform, as well as reporting and analytics. Written in Spring Boot, backed by MySQL, and secured with OpenID Connect, the platform served as the backbone for internal and external mobile applications, reporting and analytics services, and micro-location technologies.
- Owned data architecture and database design throughout the organization.
- Responsible for infrastructure design. Evaluated and managed relationships with cloud service providers, internal specifications and requirements, and implementation on Rackspace cloud.
- Managed back-end, reporting, and analytics teams, including internal and external resources.
- Key contributor in design, research, and development of first generation proprietary mapping and location services algorithms, utilizing mobile phone sensors and Bluetooth (BLE) iBeacon technologies.
- Worked closely with hardware engineers to develop custom Arduino-based hardware and firmware.

## Software Architect Market6

#### 2005 - 2014

Market6 solutions help CPG companies and The Kroger Co. solve problems in retail merchandising, category management, inventory management and collaborative planning. Market6 solutions use demand forecasts and predictive analytics to improve retail operations.

Hired as the first full-time employee to bring technical expertise and software development skills to an infant-stage startup. Designed, developed, and maintained solutions spanning from several successful pilot programs through delivery of accurate daily forecasts and SaaS reporting solutions across 60 million store/item records and 450+ customers.

- Directed the migration from a traditional data center to a cloud-based solution leveraging AWS reducing costs and startup times for all projects, while increasing the scalability of processing and reporting infrastructure.
  - Designed the initial system architecture. Utilized Redshift, S3, EC2, EBS, RDS, VPC and IAM services.
  - Evaluated several database options including MemSQL, Amazon Redshift, and IBM Netezza against Market6's needs, made a cost/performance recommendation to the CTO that was adopted for implementation.
- Led architecture and development of DemandView Engine (DVE) an internal C# service that marshals the execution of daily processing tasks, such as parameterized SQL, .Net assemblies, and SSIS packages.
  - o Responsible for initial design, as well as several substantial improvements.
  - Designed an enhancement to allow run-time parameter specification for tasks, greatly improving system flexibility. Oversaw development and testing by an offshore team.
  - Built a simplified system for controlling the execution of tasks, streamlining Operations activities.
  - Improved logging systems for better visibility into execution and improved development speed.
- Designed and implemented a process for creating generic test and demo data.
  - O Developed a set of anonymization routines to allow efficient creation of sample data that can safely be shown to potential customers and development partners without exposing proprietary information.
  - Leveraged data normalization techniques and common attributes to allow for straightforward extension.
- Led development of Vendor Mapping System (VMS) an internal web tool used to aid in assigning product ownership and viewing permissions. Users interacted with large data sets to manage rules that inform daily processing.
  - Managed a consultant while building the application utilizing MVC and DevExpress controls in an ASP.Net/C# solution, with a SQL Server back end serving tables built from the Netezza environment.
- Led development of an Operations Dashboard an internal ASP.Net/C# application, utilizing Ext.NET controls and a SQL Server back end, to monitor the state of production systems.
- Designed standardized input data transformation component; directed consulting partner and offshore team.
- Designed earliest prototype task management engine, supported development of the core analytic engine, worked with customers to receive daily data feeds in CSV, XLS, EDI, and other formats, and supported successful pilot initiatives.

## **EDUCATION**

B.S. Computer Science, Harvey Mudd College, 2003

## **TECHNICAL SPECIALTIES**

Software Architecture, Data Warehousing including IBM Netezza, RDBMS including MS SQL Server, MySQL, PostgreSQL, Columnar Databases including Amazon Redshift, Data Architecture, Data Analytics, SQL, Spring, Spring Boot, Spring Cloud, Object-Oriented Programming in Java, C#