SEI

Lauren McDonald

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PROFESSIONAL BACKGROUND

Mrs.McDonald has over 15 years of technology and data architecture experience in cloud, system, and infrastructure architecture, big data platform design and implementation, data engineering, and automated configuration and deployment. Lauren has extensive experience leading teams onshore and offshore to design, build and support large enterprise platforms and software. She has experience running proof of concept projects to pilot new technologies. Through her strong technical and business experience, she is able to collaborate with cross-functional teams across the enterprise. With many successful large new platform implementations, Mrs. McDonald has proven her ability to adapt to new environments and technologies, effectively work with leadership and business teams to translate requirements into sustainable business value.

RELEVANT EXPERIENCE

Chief Data Strategy Architect for Data Mesh Implementation at Regional Bank

Lauren partnered with the Enterprise Data Office to design and implement a platform to ingest, transform, and publish analytical data products in a distributed organizational model with embedded governance and self-service capabilities. She helped design the automation and architectural principals to implement reliable source data using client contracts and introduced and implemented dbtCloud as a platform for transformation, encouraging the use of DataOps principles among the data engineering teams, to support a bank-wide modernization effort.

Data Engineer and Architect for Event Streaming Platform at Fortune 20 Grocer

Lauren introduced business event streaming to her client, outlining the strategy and benefits of managing and engineering streaming data effectively and responsibly. Mrs. McDonald implemented a robust and flexible schema management system, providing a high developer experience among small Agile teams with a microservice architecture and traditional large monolith applications. Implementing an Azure and on-premise event streaming environment with Kafka and Azure Event Hub and built custom event-driven native Kubernetes Go event replicator for near real-time replication of business events. 60+ business domains and 200+ consuming use cases implemented in a self-service and decoupled architecture, fostering a strong technical community of engineers.

Application Performance Monitoring Engineer at Fortune 20 Grocer

Lauren led her client to implement an application performance monitoring team to appropriately monitor and alert for a fortune 20 retail company's eCommerce application. This included setting up appropriate dashboards for level of detail into system components, and drill down capability into fault domain isolation. Mrs. McDonald onboarded new employees into the team and domain and partnered to introduce and deploy a new APM technology to the organization. In this position, Mrs. McDonald also assisted with the middleware team by implementing a server automation tool for better middleware operations and designed a graph database representation of infrastructure and application assets for easy management.

FUNCTIONAL EXPERIENCE

- Prototyping
- Design for Reliability
- Data Modeling (RDBMS, graph,and NoSQL)
- Big Data Technologies
- Distributed Computing
- Machine Learning
- Data Modeling & Engineering
- Enterprise Tools
- Data Analytics
- Web Applications
- IT Security
- CI/CD
- Agile Project Management
- Kanban
- Lean Six Sigma
- SDLC

TECHNOLOGIES

Languages: Golang, Kotlin, Java, Python, Scala, Bash, HTML/CSS, JavaScript, React, AngularJS, SQL, PHP

Technologies: Snowflake, dbt, AWS, Azure, Kubernetes, Terraform, Spring, Hadoop, Spark, Neo4j, Kafka, Elastic Search, Kibana, Tableau, Talend, Dynatrace, AWS, Ansible, Chef, Linux, Windows, Oracle, Git, SQL Server

INDUSTRY EXPERIENCE

- Retail
- Manufacturing – Aviation
- Finance - Banking

EDUCATION

- M.S. – Computer Information Technology
- B.S. – Systems Analysis

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RELEVANT EXPERIENCE

Senior Architect, Web & Enabling Tools at Aviation Manufacturer
Mrs. McDonald led a team of 20+ architects in the strategy for the web and middleware spaces, including cloud / datacenter strategy, new technology introduction, and high availability design for critical systems. A specific project included designing the highly availably system to support a critical middleware technology serving as the ESB and BPMS for the company's major ERPs. In this role, Mrs. McDonald negotiated with software vendors to reduce the price by 60%+, created a project plan aligning with major ERP rollouts, and designed the system to support 99.9% reliability.

Big Data Architect at Aviation Manufacturer
Mrs. McDonald worked with the engineering team to design and implement a fortune 500's first big data lake using Hadoop, Spark, Talend, and other open-source technologies emerging in the big data space. To meet the business deadline of 3 months, Mrs. McDonald built the physical environment, wrote the data ingestion scripts, and set up compliant ITIL processes to enable the system to hold over 200,000 records to analyze sensor data for improved alerting and troubleshooting field issues, reducing time spent to resolution from months to days. McDonald worked with the business team to understand requirements, usage, and growth expectations and designed the system to be secure and scalable up to 4PB. To test a big data use case for the first time, Mrs. McDonald gathered requirements from the engineering team to redevelop an analytic in Map/Reduce, reducing processing time from 60 days to 15 minutes.