Brad West

Bozeman, MT
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brad.g.west@gmail.com
612-232-8638
Github: bradgwest
fightingcomplexity.substack.com

Summary

Software Engineer with broad experience leading technical teams building distributed systems. Motivated by the challenge of designing effective solutions to complex business problems. Delivers lasting customer value by adhering to a software philosophy which emphasizes quality while minimizing complexity. With core expertise in Data Engineering, Machine Learning, Infrastructure, and DevOps, deeply understands the workings of modern software platforms. By taking on ever challenging roles, will continue to mature as a highly impactful technical leader.

Experience

dbt Labs - *Senior Software Engineer* *Jul 2022 - present*

- Led a team of DevOps engineers in unifying the deployment architecture for dbt Labs' AWS and Azure hosted SaaS platform. Built cloud-agnostic infrastructure abstractions (Kubernetes/Terraform) and exposed a single deployment API (Argo CD/Helm), resulting in increased deployment velocity and reduced incident rate. Work was critical to aligning product functionality between clouds and supporting Azure revenue expansion.
- Designed and implemented a Continuous Integration/Continuous Deployment (CI/CD) (Docker/Github Actions) system for all of dbt Labs' cloud infrastructure. Reduced infrastructure engineers' manual toil (>30%/hr) by automatically detecting and concurrently deploying updates to hundreds of customer environments on Azure and AWS. Crucial system for supporting dbt Labs' rapid multi-cloud feature growth.

Petal - *Senior Software Engineer* *May 2021 - Jul 2022*

- Technical lead designing and building a machine learning (ML) data platform (AWS) powering Petal's risk models for financial lending. Exposed a self-service interface allowing Petal data scientists to incorporate terabyte-scale consumer financial data into model training. Seamlessly integrated with data lake and warehouse. Boosted risk models' predictive power, pivotal in helping Petal navigate rising rate environments starting in March 2022.
- Developed a highly-scalable CI/CD system for data warehouse changes. Leveraged containers to isolate and test changes against production data before merge and during blue-green deployments. Reduced change failure (>30%) by supporting concurrent commits from dozens of analysts. Essential in supporting organizational scaling of analytics teams.
- Developed highly performant Python code for ingesting financial transaction data into Petal's data warehouse. Refactors reduced batch processing runtimes by multiple orders of magnitude, including improving runtime for the company's largest and most critical job from 3 days to <15 minutes. Performance enhancements allowed for reprocessing multi-year data sets, leading to more powerful ML models by incorporating new derived features.
- Mentored junior developers on data engineering best practices including batch and stream processing, data warehouse/lake design, containerization, and Infrastructure as Code. Aligned the team around a shared set of best practices and design principles, markedly improving code quality and system health.

Workiva - *Software Engineer* *Jan 2017 - May 2021*

- Built and operated globally-distributed infrastructure for ingestion and persistence of audit logging and client/server-side analytics (AWS, GCP). Highly reliable system capable of massive throughput (+100GB/day), necessary for Workiva's operation in tightly regulated financial and data spaces. Core data platform for all of Workiva's analytic and machine learning services.
- Developed map-reduce style batch processing pipelines (Apache Beam/Dataflow) for data analysis and persistence to a terabyte-scale data warehouse (BigQuery). Integral to understanding customer usage of multiple product lines.

Education

Montana State University - *M.S. Statistics* *May 2016 – Nov 2020*

- *Deep Convolutional Embedded Clustering of Digitized Fine Art* - Implemented a novel deep neural network (Keras/Kubernetes/GCP) to cluster images of artwork auctioned by Christie's ($10B+) over a 15 year period. Model learned an artistically relevant image structure, independent of extrinsic properties like genre or artist, useful for identifying mispriced works.

Whitman College - *B.A. Geology (Honors)* *Aug 2008 – Sep 2012*