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Skill Index

Data Architecture:
- Cloud Data Stack
- Conceptual Modeling
- Logical Modeling
- Security/GRC
- Linux/Git/Docker

Data Engineering:
- Relational Databases
- Data Warehousing
- Python, SQL, Bash
- ETL pipelines
- CI/CD

Data Analytics:
- Operational Analytics
- On-Demand Analytics
- Dashboards
- Jupyter Notebooks
- Plotly/Looker/Tableau

Leadership: • data lifecycle management • engineering management • technical program management •

Experience

February 2021 - Current

HCL America, Inc., Sunnyvale, CA – *Principal Data Architect*
Client: Google (Business Intelligence Group, Global Affairs)

Data Architecture:

- Technical lead for three compliance reporting data models. Engineering management for ETL pipelines and dashboards/reports based on these models
- Played a critical role in developing a high-level data platform to serve as a centralized system of record for the data underlying compliance workflows at Google. Helped define a common framework-agnostic data model for abstracting GRC (governance, risk, compliance) data, driving automation and collaboration across teams
- Launched a project to refactor materialized tables into logical views on the SOX pipeline, and performed code reviews for the data engineers doing the work
- Data security evangelist and primary point of contact for Access Control Lists (ACL) updates to sensitive data and dashboards. Maintained awareness of corporate policies in addition to privacy & security regulations like GDPR, CCPA, and EU DSA, etc.
- Technical lead for the data quality team on an executive-level reporting pipeline, ensuring the accuracy, completeness and timeliness of compliance data by the product areas teams
- Metadata management for technical, business and operational use
- Launched a project to refactor a legacy critical production pipeline. Created the SQL testing framework, and documented issues/bugs for tracking the project. Performed code reviews for the data engineers performing the work. Facilitated weekly meetings with the stakeholders to track progress and handle issues
- Stayed current with Google technical documentation for data management and compliance. Tools included: plx dashboards, in-house unix tools, GoogleSQL, F1 materialization (data warehousing), sql-spreadsheet integration, Plx workflows (ETL tool), Critique (code review), Looker Data Studio, Ganpati2 (ACL management), Connect Composer (documentation), and GSuite

Data Engineering:

- Author/reviewer of over 600 change lists (CLs) in the Google code base for data engineering
- Orchestrated compliance reporting pipelines for Engineering Compliance, SOX, Cloud, and RegReady programs to meet critical regulatory deadlines. Using Google's in-house version of [GCP Dataflow](#) and [Cloud Composer](#) (built on [Apache Airflow](#))

- Automated SQL tests and alerts to notify engineers and stakeholders of anomalous data injected into the system. Checked ingestion data for missing values and validated account details against HR datasets
- Implemented continuous build processes (CI/CD) for automated deployment of dashboards, scripts, data sites and data workflows from the Google code base. Built software packages in Google Linux with Bash, Blaze (similar to Docker), Rapid (automating deployment), and Piper (version control)
- Implemented process discipline and engineering best practices for engineering team members, including code review workflows. Adopted internal SQL readability style guidelines to ensure alignment with SQL formatting and documentation standards
- Designed and maintained a highly utilized data asset consistently ranking in the top 10% of commonly accessed tables at Google
- Moved the pipelines and front-end visualizations for two work streams into the corporate version control system. This critically enhanced the transparency and visibility of code changes
- Migrated SQL scripts between database engines, changing syntax, built-in functions and metadata structures. This was required to stop using deprecated software

Data Analysis & Dashboards:

- Expert in exploratory data analysis, demonstrated through the design and development of compliance-related dashboards using Looker Data Studio and Plx (a Google-internal data visualization tool similar to Tableau). These dashboards tracked the status of compliance regulations, risk assessments, remediation plans, assigned teams, and compliance control relationships to systems, products, and various types of data. Dashboards were converted to text format and checked into the corporate version control system
- Helped develop KPIs in alignment with program management dashboards to track progress and drive operational insight in weekly status meetings for DevOps, Tooling and other teams
- Primary point of contact for analysis on multiple data pipelines. Worked with analysts and stakeholders to validate and address data anomalies
- Successfully refactored the user interface for over 130 SOX critical dashboards, including developing prototypes, getting approvals, and managing a team of front-end engineers to ensure timely delivery. Facilitated the review and acceptance of the updates by stakeholders

Leadership:

- Tech lead for the launch of new data pipelines and analytic efforts in collaboration with cross-functional team members and stakeholders
- Facilitated daily scrums for data engineers (I'm a [certified scrum product owner](#))
- Backlog grooming/prioritization and issue management, driving the resolution of over 600 issues in the Google issue tracking software
- Contributed to the development of program documents, including project communications, business requirements documents, product requirements documents, solution design proposals, proof-of-concept prototypes, newsletters, and slide decks
- Managed and contributed to end user and technical documentation. Led a team of technical writers and business analysts in revising the help center documentation for multiple applications
- Managed technical projects using in-house Google project management software and custom dashboards tailored to each team
- Provided training and mentorship to new team members on data models and internal data engineering tools. Facilitated knowledge sharing and changes to the team structure
- Trained advanced stakeholders on domain-specific data models, Google SQL functions, spreadsheet data feeds, and other data visualization tools
- Maintained up-to-date knowledge of rapidly-evolving corporate privacy, security, and data governance policies, and applied these policies in making design decisions for data engineering tasks

- Gathered requirements for reporting and dashboards, defined acceptance criteria, and proposed potential positive outcomes. Developed solutions based on consensus
- Conducted retrospectives and post-mortems to review and analyze project processes and outcomes

2001 - 2019
Tuolumne Technology Group, Sonora, CA – *President*
Role: Founder, Product Owner, Lead Engineer

Founder / inventor of FlashcardExchange (now called cram.com), a disruptive technology startup that was first to market in 2001 for collaborative online study

- Devised and executed a business strategy that scaled the online user base from 0 to 2M users
- Sold the company for ~$1 million. cram.com is still a market leader with 3.3+ million customers and 195 Million+ flashcards
- Over time, developed and refactored the web and back-end application architecture as needed:
  - *Servers*: Built & managed unix servers and software. Package management, containerization, performance tuning, email server management, log file processing. FreeBSD, Varnish, Apache, Postfix, Memcache
  - *Design*: data modeling, UX design, application and infrastructure design
  - *Data*: PostgreSQL and MySQL database engineering and administration. Logical/conceptual schema development, ETL, database performance tuning for highly-available web applications, offsite backups, etc.
  - Early adopter of AWS S3 and SES

Education
2021 – Meridian University, Petaluma, CA – *PhD in Psychology*

- **Capacity building for leadership and emotional intelligence:** transformative leadership, collaborativity, empathy, reflexivity, creative conflict resolution, giving/receiving feedback, perspective taking, bracketing biases.
- 1250 hours of fieldwork conducting psychological assessments, facilitating therapy groups, and practicing individual psychotherapy
- Conducted original research and produced a 300+ page dissertation in psychology, including planning and organizing data collection and literature review. Successfully managed the dissertation through a rigorous document review process with multiple subject matter experts as reviewers

1995 – UC Santa Cruz, Santa Cruz, CA – *BA in Philosophy*

- Deductive reasoning, logical fallacies

References on LinkedIn