Culley Harrelson, PhD

Experience

February 2021 - Current

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

- **Technical Program Management:**
  - 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
  - Facilitated the launch of new software products in collaboration with cross-functional team members and stakeholders
  - Backlog grooming/prioritization and issue management
  - Maintained access control lists (ACLs) for sensitive data, as well as creating new users and groups on a regular basis
  - Managed end user and technical documentation, both as a direct contributor and project lead. Led a team of technical writers and business analysts in revising the help center documentation for multiple compliance applications
  - Managed technical projects using Google Project Management software and custom dashboards
  - 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
  - Facilitated daily scrums (I'm a certified scrum product owner)
  - 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

- **Stakeholder Engagement:**
  - Worked autonomously with global teams across multiple departments to address governance, risk management, and compliance (GRC)
  - 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

- **Data Engineering:**
  - Orchestrated compliance reporting pipelines for Engineering Compliance, SOX, Cloud, and RegReady to meet critical regulatory deadlines. Managed metadata for tables in the corporate data lake
  - Automated SQL tests and alerts to notify engineers and stakeholders of anomalous data injected into the system. Checked ingestion data for null values and validated account details against HR datasets

- ○ Implemented CI/CD processes for automated deployment of dashboards, scripts, data sites and workflows with the Google code base. Built pipeline and dashboard packages in Linux with Bash, Blaze (building software), Rapid (deploying software), and Piper (version control).
- ○ Demonstrated strong knowledge acquisition and technology adoption skills by developing a thorough understanding of Google's compliance-related data models and internal technologies for business intelligence. Quickly developed a high level of competency with: 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
- ○ Joined data from diverse company datasets to enrich reports
- ○ Designed and maintained a highly utilized data asset at Google, consistently ranking in the top 10% of commonly accessed tables. Ensured freshness and availability of the data for consumer needs
- ○ Improved performance of a large ETL pipeline by refactoring materialized tables into logical views. Successfully migrated pipeline code and front-end visualizations into the corporate version control system as a part of this effort
- ○ Successfully launched/managed a project to fully refactor another critical production pipeline, including creating a structure of SQL tests to validate dataset consistency, migrating downstream dashboards, adjusting ACLs, and developing comprehensive documentation and training materials for pipeline consumers
- ○ Migrated SQL scripts between database engines, changing syntax, built-in functions and metadata structures. This was required to stay current with the changing technology.

- **Business Intelligence:**
  - ○ Expertise 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
  - ○ Skilled in designing conceptual and logical data models, process models, and system diagrams using Google Drawings and Lucidchart
  - ○ Successfully refactored the user interface for over 120 dashboards critical to the SOX program, including developing prototypes and managing a team of front-end engineers to ensure timely delivery. Facilitated the review and acceptance of the updates by stakeholders

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*: Build unix servers and software, including package management, performance tuning, email servers, and 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, performance tuning for highly-available web applications, server backups, etc.
  - Early adopter of AWS [S3](#) and [SES](#)

Technology

AWS Stack: EC2, ACM, S3, SES, Route 53, EIP, Load Balancers, Security Groups, MWAA, Lightsail, CloudWatch

Google Stack: BigQuery, Plx, Looker Data Studio, AppScript, GoogleSQL

Open Source: Git, python, php, bash, javascript, vim PostgreSQL, MySQL, Amazon linux, FreeBSD, Apache Airflow, Apache Spark, NginX, Apache Web Server

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 are Available on Request