# **Brian Okuno**

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# **Accounting and Financial Data Engineer**

Financial Analytics • Data Pipelines • Retrieval Systems • Automated Insights

CPA eligible Accounting and Financial Data Engineer with 20+ years of Big Four experience building and scaling data systems for accounting teams. Combines deep knowledge of GAAP, double entry accounting (debits/credits), and financial controls with modern data engineering to deliver scalable pipelines, automated reconciliations, anomaly detection workflows, and retrieval-driven AI systems that strengthen accuracy in accounting, loss analysis, and GAAP aligned reporting.

Currently completing a Master's in Applied Data Science at USC (Dec 2025). Recent work includes constructing large-scale financial data pipelines using Python, SQL, Spark, and Airflow on AWS (DEA-C01 in progress), implementing retrieval-driven and agentic AI workflows with LangChain and LangGraph, and developing automated analytics and accounting system insights for complex, high volume financial datasets.

#### **EDUCATION**

Master of Science in Applied Data Science - Graduating 12/2025

University of Southern California (USC) • GPA: 3.50

Los Angeles, CA

Master of Business Administration in Finance and Strategic Management

Claremont Graduate University

Claremont, CA

Bachelor of Science in Biological Science, Bachelor of Arts in Social Science
University of California, Irvine
Irvine, CA

#### **WORK EXPERIENCE**

#### **Professional Sabbatical**

05/2024 - Present

## Data Professional – Graduate Study and Technical Development

- Took a planned career pause to support my daughter's start in school while completing graduate studies and expanding technical proficiency in data systems and analytics.
- Developed hands-on projects in recommendation systems, time series modeling, and retrieval-driven data pipelines reflecting current advances in intelligent and agentic technologies.

Ernst & Young 01/2010 - 04/2024

## Senior Manager, Tax Technology and Transformation Services

 Reduced manual data preparation time by 50% through automated pipelines, freeing teams to focus on higher value financial analysis and review.

- Cut end-to-end review cycle times by 3 days by implementing standardized reconciliation logic across tax and accounting datasets.
- Improved accuracy of tax data processing by 20% through automated anomaly detection, validation checks, and cross-system reconciliation workflows.
- Enabled faster quarter-end reporting by building ingestion pipelines capable of processing millions of rows of structured client data.
- Managed multiple parallel workstreams (client delivery, automation development, quality reviews, training, and senior-level presentations) while maintaining accuracy and deadlines.
- Designed and implemented scalable ETL pipelines supporting ingestion, validation, and transformation of global tax and accounting datasets.
- Oversaw SaaS and application development projects integrating tax and accounting compliance solutions with large-scale financial datasets.
- Partnered with clients to scope and deliver custom automation tools for tax data analysis, reporting, and GAAP aligned reconciliation workflows.
- Led development of Python and SQL based automation tools that improved data accuracy and accelerated multi-stage review cycles.
- Improved financial data quality by introducing automated validation, reconciliation, and variance detection logic across high volume financial reporting flows.

## Manager, Tax Technology and Transformation Services

- Improved team productivity by 25% by developing reusable SQL scripts, standardized templates, and automated data prep workflows.
- Reduced reconciliation effort by 20 hours per cycle through SQL based variance detection and exception identification logic.
- Led a team of 10 consultants on data intensive tax and accounting engagements requiring SQL, database design, and analytical scripting.
- Integrated structured client data from multi-source systems into reporting and analytics platforms, supporting downstream tax and financial workflows.
- Championed technology driven process improvements that accelerated review cycles and strengthened data reliability.

- Collaborated with cross-functional teams (IT, finance, tax, engineering) to standardize data ingestion, mapping, and reconciliation processes.
- Accelerated data integration and mapping across financial systems, improving downstream reporting efficiency and consistency.

## Senior Consultant, Business Tax Advisory

- Conducted interviews with SMEs and used quantitative analysis to support tax credit and deduction positions.
- Managed full project lifecycle including budgeting, execution, and delivery.
- Built analytical tools in Excel using pivot tables and charts to support findings.

## Armanino McKenna

07/2008 - 12/2009

Tax Manager San Jose, CA

- Led ASC 718 (FAS 123R) stock-based compensation accounting, analyzing book/tax timing differences and computing APIC pool impacts for complex equity programs.
- Performed large-scale data analysis to calculate and substantiate IRC §41 R&D tax credits, including database extraction, validation, and reconciliation of multi-year datasets.
- Managed tax provision and compliance support, including FAS 109 calculations, fixed asset depreciation reconciliations, gain/loss analyses, and large volume historical data reviews.
- Supervised staff, prepared technical documentation and methodological memos, and delivered data-driven insights through advanced Excel modeling (spreadsheets, pivots, charts).

Deloitte 08/2003 - 06/2008 Senior Consultant San Francisco, CA

- Founding team member for DBXi (DataBase eXpress interviewer), a nationwide SaaS platform ingesting financial and accounting data to automate Section 41 R&D tax credit calculations; contributed to design, development, and deployment of the tool used across Deloitte practices.
- Performed technical interviews with engineering and product teams to identify qualifying R&D activities, translating complex development processes into defensible tax credit positions under IRC §41.
- Analyzed project level cost data across multi-year periods, applying audit ready methodologies to quantify qualified research expenses (QREs) and document nexus between activities, labor, and experimentation.

 Prepared detailed workpapers and technical memoranda supporting federal and state R&D credit claims, collaborating with partners and clients to respond to IRS and state examinations.

#### **RELEVANT COURSEWORK - USC MASTER'S PROGRAM**

## Information Retrieval and Search Systems

Constructed indexing pipelines and ranking models; applied precision/recall metrics and retrieval techniques relevant to large-scale financial datasets.

## Machine Learning and Recommendation Systems

Implemented logistic regression, SVM, decision trees, ensembles, and collaborative filtering using PySpark.

## **Data Engineering and Architecture**

Developed distributed data pipelines with Hadoop and Spark; optimized schema design and NoSQL integration (MongoDB, HBase, DynamoDB); reinforced skills foundational to AWS-based data engineering.

## **Applied Data Processing and Analytics in Python**

Web scraping, object oriented design, time series, geospatial and text data analysis; emphasized data ethics, provenance, and automated analysis pipelines.

### **SKILLS**

- Languages: Python, Scala, SQL
- Cloud and Data Platforms: AWS (S3 Glue Redshift), Databricks, MongoDB, MySQL, NoSQL Systems, SQL Server
- Tools and Frameworks: Airflow, Jupyter Notebooks, LangChain, LangGraph, NumPy, Pandas, Power BI, PySpark, Scikit-learn, Spark, Tableau, XGBoost
- Data Engineering Competencies: Data Governance, Data Pipeline Development, Distributed Processing, ETL/ELT Workflows, Scalable Data Architecture
- Machine Learning Competencies: Anomaly Detection, Classification, Clustering, Feature Engineering, Model Evaluation, Regression, Time Series Analysis
- Al System Competencies: Agentic Al Applications, Information Retrieval, Recommendation Systems, Retrieval Augmented Generation (RAG)