

JAMES BOVA

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DATA ENGINEER | SQL SERVER / SSIS | SNOWFLAKE | AIRFLOW | DBT

PROFESSIONAL SUMMARY

Data engineer with 20+ years in enterprise banking technology and deep experience with SQL Server, T-SQL, SSIS, ETL/data integration, vendor and processor feeds, reconciliation, data validation, and production support. Recent hands-on portfolio work extends that background into modern data engineering with Snowflake, Apache Airflow, dbt Core, Python/pandas, PostgreSQL, Docker, metadata-driven ingestion, data-quality gates, dimensional modeling, incremental processing, and SCD Type 2 history.

TECHNICAL SKILLS

Data Engineering: ETL/ELT | batch pipelines | metadata-driven ingestion | flat-file ingestion | vendor/processor feeds | data quality | reconciliation | reruns/backfills

SQL & Warehousing: SQL Server | T-SQL | PostgreSQL | Snowflake | stored procedures | views | indexing | execution plans | query troubleshooting | relational/dimensional modeling | SCD Type 2

Orchestration & Transformation: SSIS | Apache Airflow | dbt Core | Control-M | Bronze/Silver/Gold architecture | incremental models

Programming & Tools: Python | pandas | C# | ASP.NET | Docker | Docker Compose | Git | GitHub | Streamlit | Snowpark | FastAPI

Production & Delivery: monitoring | incident triage | dependency analysis | disaster recovery | audit/regulatory support | runbooks | Agile/Scrum | SDLC | code/design reviews | stakeholder communication | remote collaboration

PROFESSIONAL EXPERIENCE

FIFTH THIRD BANK | Chicago, IL / Remote | May 2019 - Aug 2026

Lead Software Engineer / Lead Applications Developer

- Owned and enhanced the prepaid activity data warehouse used for regulatory reporting, audits, downstream feeds, and operations.
- Developed and supported SSIS pipelines for processor and vendor flat files into SQL Server, including transformation, validation, error handling, reruns, and recovery.
- Served as SME for prepaid monitoring and data flows; investigated data-integrity issues and restored production processing.
- Built a modular warehouse extension for onboarding deposit-side vendors and created a metadata-driven generic file importer using C# and SQL Server.
- Built C# automation to generate ACH and wire-formatted output files; reviewed SQL and ETL code for accuracy, performance, maintainability, and production readiness.

MB FINANCIAL BANK | Chicago, IL | May 2009 - May 2019

Application Developer / ETL Developer

- Supported prepaid card data processing, compliance exports, and operational reporting using SQL Server, SSIS, T-SQL stored procedures, queries, and views.
- Used Control-M to monitor scheduled batch processing, analyze dependencies, perform reruns, and troubleshoot failed or delayed jobs.
- Built C# automation for an NSF account-closure process that integrated mainframe scripting with external collections agencies.

CORUS BANK | Chicago, IL | May 1999 - May 2009

Application Developer / Data Systems Developer

- Developed SQL Server applications and data-processing tools for banking operations, reporting, vendor integrations, and transactions; translated business requirements into database objects, file interfaces, reports, and support utilities and troubleshooted production issues across database, application, and file-processing layers.

TECHNICAL PROJECTS

End-to-End Vendor Ingestion & Data Warehouse | 2026

GitHub: github.com/JamesBova/data-engineering-portfolio

- Built an end-to-end batch pipeline that ingests multiple synthetic vendor file formats into Snowflake using Apache Airflow, Python/pandas, and metadata-driven control tables.
- Implemented Bronze/Silver/Gold architecture with dbt Core, including standardized business entities, SCD Type 2 dimensions, historical relationships, and incremental fact processing.

- Created SQL-based data-quality gates, rerun/backfill handling, and a Streamlit/Snowpark dashboard for pipeline health and warehouse validation.

Snowflake Data Engineering | 2026

GitHub: github.com/JamesBova/Snowflake-Data-Engineering

- Generated transaction data in CSV, JSON, and Parquet and loaded it through Snowflake internal stages using PUT and COPY INTO.
- Defined reusable file formats, loaded JSON into VARIANT, projected Parquet into typed columns, and reviewed load history for validation and troubleshooting.
- Implemented streams and tasks for incremental processing and explored resource monitors and query history/profile metadata for cost and performance visibility.

PostgreSQL SQL Performance Lab | 2026

GitHub: github.com/JamesBova/PostgreSQL-SQL-Performance-Lab

- Generated and bulk-loaded test data into PostgreSQL and used EXPLAIN ANALYZE to compare query behavior before and after tuning.
- Demonstrated selective indexing, query rewrites, and JSONB search with GIN indexes, documenting measurable execution-time improvements.

Python API to Database Pipeline | 2026

GitHub: github.com/JamesBova/python-api-database-pipeline

- Built a Python pipeline for retrieving API data and loading it into PostgreSQL using requests, pandas, SQLAlchemy, and psycopg.
- Used environment-based configuration and parameterized database operations to separate connection settings from application code.

Additional Public GitHub Labs

Snowflake-Lab | Advanced-SQL-PostgreSQL | SQL-Fundamentals | python-file-processing | python-fundamentals

EDUCATION

Bachelor of Science, Information Technology | Elmhurst University | 2019