Zarnab Haider

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Data Engineer / BI Developer | SQL, Python, Azure Data Factory, Synapse, SSAS Tabular, dbt, Power BI, Tableau

SUMMARY

Data engineer and BI developer on the Microsoft data stack: owned a zero-downtime SSAS Multidimensional-to-Tabular migration at Microsoft (up to 200x faster filtering), delivered 20+ SQL-backed Tableau dashboards at UVA, and since April 2026 has built tested Python, dbt, and PostgreSQL pipelines that fail closed on bad data.

EXPERIENCE

Independent Software Engineer, Charlottesville, VA — Apr 2026 to Present

Build tested data and ML software with CI; about 1,990 commits across 30+ public repos.

Indigo Circuit | github.com/zarnab222-dev/indigo-circuit — May 2026 to Present

- Built a Pokemon TCG analytics pipeline (Python ingestion, Glicko-2 ratings, dbt on DuckDB, Flask).
- Moved the dbt warehouse off Snowflake to DuckDB after about $150 in credits.
- Atomic shadow builds behind a fail-closed gate (schema, row-count floors, regression vs live) cut nightly read blocking from ~9 minutes to under 1 second.

LM Lab | github.com/zarnab222-dev/lmlab — Aug 2026 to Present

- Built a PyTorch transformer and ran 39 seeded, controlled runs (1 to 8 blocks: held-out loss 3.529 to 3.337 nats/token).
- Checked a fused Triton softmax against a float64 oracle in a 462-case gate.

C-1N hexapod | github.com/zarnab222-dev/spider — Aug 2026 to Sep 2026

- PyTorch PPO for a six-legged MuJoCo robot; mean-policy speed rose from 0.318 to 0.888 m/s with zero falls in 24 evaluations.

University of Virginia, IT Analyst Intermediate, BI Developer, Charlottesville, VA — May 2025 to Mar 2026

- Owned 20+ SQL-backed Tableau dashboards for department leads across Facilities Management, from interviews through deployment and support, including ReUSE Store impact reporting with over 400 views; wrote shared SQL metric definitions.
- Reconciled conflicting purchase-order states across financial systems; built a dashboard surfacing the deltas and their financial impact across purchase orders worth millions of dollars.
- Contributed to a collaborative, telemetry-driven team effort that cut organization-wide dashboard load times by about 20%.

Microsoft, Software Engineer I, Redmond, WA — Jul 2021 to Jul 2024

- Owned a zero-downtime SSAS Multidimensional-to-Tabular migration of an internal financial reporting platform for planning and financial close; defined parity checks, monitored four weeks of pipeline behavior, and kept the legacy service up until cutover.
- Wrote Azure Data Factory scripts for daily pipeline monitoring and extended automated legacy-to-Tabular financial-value reconciliation; result: up to 200x faster filtering and ~4x faster Excel loading (telemetry).
- Built and maintained Azure reporting pipelines across Azure Synapse, Kusto (KQL), SQL, and C#/.NET; used Python daily from the second year on, on the team's Spark-based data platform; built Power BI dashboards (basic DAX).

PROJECTS

Log Pose | Python, PostgreSQL, SQLite, Vercel | logpose.mhaider.dev — Sep 2026 to Oct 2026

- Built a Python/PostgreSQL evidence store over 18,076 dated rows from 14 pinned sources, with immutable source hashes, separate capture and arrival timestamps, and cutoff queries behind a versioned read-only API; PR CI runs disposable PostgreSQL integration tests and a daily smoke check verifies the live deploy.

Receipts | JavaScript, Chrome extension, Java | receipts.mhaider.dev — Sep 2026 to Oct 2026

- Built a private-by-design Chrome extension and viewer over FEC and Congress data for 539 members (no accounts, analytics, or runtime API calls; tests cover hostile page mutations), plus a Java RuneLite plugin on the same pipeline.

shin86 | TypeScript, Web Audio | shin86dev.itch.io — 2026

- Publish creative tools and assets, including Afterimage (a music release clip maker) and OBS stinger and overlay packs; built nebvis, a browser music visualizer for tab, mic, or local audio.

SKILLS

Microsoft data stack: SQL, SSAS Multidimensional and Tabular, Azure Data Factory, Azure Synapse, Kusto (KQL), Power BI (basic DAX), C#/.NET
Data engineering and BI: Python, dbt, DuckDB, PostgreSQL, SQLite, Flask, pandas, Tableau, R, PyTorch
Data quality and delivery: Parity checks, reconciliation, fail-closed validation, atomic publication, integration tests, Git, GitHub Actions CI

EDUCATION

Virginia Tech, B.S. in Statistics, Blacksburg, VA — 2021