Zarnab Haider

Data and software engineer | Production data systems, C#/.NET, SQL and Azure.

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SUMMARY

Software engineer with three years at Microsoft and subsequent BI development at the University of Virginia. Built financial-reporting migrations, automated data checks, internal tools, and SQL-backed analytics from requirements through deployment and support.

PROFESSIONAL EXPERIENCE

University of Virginia | IT Analyst Intermediate, BI Developer | United States *May 2025–Mar 2026*

- Led analytics projects from stakeholder interviews through deployment and maintenance; translated loosely defined operational questions and cross-organizational data needs into SQL-backed Tableau dashboards.
- Built ReUSE Store environmental and economic-impact reporting; adapted Tableau views as workflows changed.
- Collaborated on telemetry-informed optimization that cut organization-wide dashboard load times by approximately 20%.
- Reconciled conflicting purchase-order states across financial systems and built a dashboard that surfaced deltas and impact.

Microsoft | Software Engineer I | United States *Jul 2021–Jul 2024*

- Owned an end-to-end migration from SSAS Multidimensional to Tabular; defined parity checks, monitored four weeks of pipeline behavior, and kept the legacy service available until the replacement met cutover criteria.
- Deployed Azure Data Factory verification scripts for daily pipeline monitoring and legacy-to-Tabular data consistency.
- Validated downstream financial-reporting workflows that showed up to 200x faster filtering and approximately 4x faster Excel loading.
- Built a full-stack C#/.NET prototype that guided configuration, generated files, and validated output.

Microsoft | Software Engineering Intern | United States *Summers 2017, 2018*

- Built a C# service that determined each OneDrive user's most recently used items for a product UI feature and validated it in development.

SELECTED PROJECTS

Indigo Circuit | Independent data application | 2026

- Built a nightly tournament-data pipeline that rebuilds dbt models in a shadow DuckDB database, validates results, and promotes the database atomically.
- Computed Glicko-2 player ratings and Bayesian expected-value estimates with 90% credible intervals.

C-1N + Robotics Test Bench | Independent simulation project | Aug 2026–Present

- Expanded C-1N from 12 to 18 actuated joints by adding six orthogonal coxa hinges across the simulation and control paths.
- Defined a deterministic 10-second standing acceptance test and retained 1x-body-weight recovery failures as a boundary.

TECHNICAL SKILLS

Languages: C#, Python, SQL, R

Production systems: C#/.NET, SQL, SSAS Tabular, Azure Data Factory, Azure Synapse, Kusto (KQL), Tableau

Delivery: Git, GitHub Actions; project tools: DuckDB, dbt, NumPy, pandas

EDUCATION

Virginia Tech | B.S. in Statistics *2021*

Coursework: Bayesian Statistics, Experimental Design, Statistical Computing, Mathematical Modeling, Combinatorics, and Proofs