

MARICIA ALLEMAN

Senior Data Engineer · Analytics Engineer · BI Developer

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SUMMARY

Hands-on data engineer and analytics builder with 20+ years of experience designing SQL pipelines, ETL/ELT workflows, data warehouse architectures, and Power BI reporting solutions from the ground up. Proven ability to wrangle inconsistent, multi-vendor data sources into governed, reliable models in greenfield environments with little existing infrastructure. Deep technical fluency in SQL Server, Snowflake, Python, Power BI (DAX/Power Query), and Power Automate. U.S. Army veteran with an M.S. in Computer Science and a track record of building what others spec out.

TECHNICAL SKILLS

Databases & Warehousing: SQL Server, Snowflake, UniData, T-SQL, DAX, Power Query, ETL/ELT, Data Modeling, Data Warehousing

BI & Visualization: Power BI (semantic models, row-level security, DAX measures), SSRS, Visual Studio BI

Languages & Automation: Python (Tkinter, file processing, automation), Power Automate, ASP.NET, Git

Platforms & Tools: Ellucian Colleague ERP, OnDataSuite, Eduphoria, Focus SIS, Active Directory, Office 365, SharePoint, Cisco Meraki, Hyper-V

Practices: Data Governance, Data Quality & Validation, FERPA Compliance, ETL Pipeline Design, Greenfield Architecture

EXPERIENCE

Director of District Data Analytics | Ector County ISD — Odessa, TX 2023 – Present

Recruited to build a district-wide data platform from scratch in a greenfield environment — no existing data warehouse, no standardized tooling, and data sourced from a different vendor or system for nearly every reporting area.

- Architected and built ETL pipelines integrating 6+ inconsistent, multi-vendor data sources including Focus SIS, OnDataSuite, TEA/TEAL, assessment vendors, and Eduphoria into centralized SQL Server reporting models serving 30,000 students across 49 campuses
- Designed and deployed 10+ Power BI semantic models and dashboards supporting attendance, graduation, CCMR, STAAR, TELPAS, and A–F accountability reporting for executive and campus audiences
- Developed CCMR Classification Engine: implemented full TEA-aligned accountability logic, bucket assignments, IBC tier classification, and weighted scoring calculations from raw source data
- Built SDR Sorter — a Python/Tkinter automation tool that sorts 2,000–4,000 assessment files per cycle; reduced SDR processing time from 4–6 hours to under 30 minutes per month
- Managed end-to-end State Data Reporting (SDR) and SIRS reconciliation processes including TIDE uploads, student test file extractions, crosswalks, and quality checks
- Fulfilled 5–10 data requests per month from district leadership, TEA, and external partners; submitted millions of data points annually to TTU as part of ongoing research data agreements
- Implemented data governance standards where none existed: data dictionaries, quality checks, lineage documentation, and source-of-truth validation across reporting domains
- Supported Teacher Incentive Allotment (TIA) data compilation, designation logic, validation, and submission documentation in coordination with HR
- Administered Board Goals and District Improvement Plan (DIP) platforms including user provisioning, permissions, and annual rollover configuration

Chief Technology & Information Security Officer | Eastern New Mexico University – Ruidoso 2021 – 2023

- Directed enterprise technology infrastructure: servers, networking, virtualization (Hyper-V), wireless (Cisco Meraki), Active Directory, Office 365, and information security operations

- Built a Power BI application integrating Active Directory and Banner ERP data into a searchable computer inventory lookup — technology used SQL, Power BI, and PDQ
- Developed a Power Automate / Power Apps phone directory solution exporting Mitel Connect data to a mobile-friendly, Teams-embedded Power BI report with multi-format download
- Managed SQL Server, WSUS, Group Policy, and enterprise security operations including disaster recovery planning and business continuity
- Led infrastructure modernization: VLAN configuration, firewall management, wireless expansion, and campus-wide technology replacement planning

System Analyst II | University of Texas Permian Basin

2014 – 2020

- Designed and maintained ETL packages to import 79 extracts from two PeopleSoft databases into a Microsoft SQL Server data warehouse using Visual Studio and SSIS
- Built and maintained SSRS reporting systems and SharePoint-integrated BI solutions supporting institutional compliance and operational decision-making
- Ensured data integrity, quality, and security across enterprise data warehouse systems serving academic and administrative reporting needs
- Developed and customized web-based reporting systems for internal and external compliance requirements

Programmer Analyst / Network Communications Specialist | Odessa College

2009 – 2014

- Administered Ellucian Colleague ERP and WebAdvisor: security provisioning, user access, UniData programs, file dictionaries, and enterprise reporting processes
- Automated ERP user creation and security assignment workflows, significantly reducing manual administration overhead
- Developed and maintained SQL-based institutional reporting solutions and database processes
- Supported enterprise backup systems, disaster recovery, and business continuity operations

PC Support Specialist | City of Odessa

2005 – 2009

- Developed and maintained client/server applications, intranet systems, and SQL-based web applications using ASP.NET across municipal departments
- Maintained SharePoint Server SQL databases and supported business continuity and disaster recovery planning
- Provided hardware, software, and network troubleshooting support across municipal departments

Signal Support Specialist (31U) | U.S. Army

1993 – 2001

- Installed, maintained, and troubleshoot communications systems, signal support equipment, and data distribution systems
- Provided technical training for communications and automation equipment operations; maintained readiness documentation

SELECTED PROJECTS

- **Lone Star Data Platform:** Designed a layered Snowflake architecture using raw, staging, and analytics schemas to centralize district data from disparate sources. Integrated automated Power BI reporting and governed analytics workflows — built without a pre-existing data infrastructure.
- **CCMR Classification Engine:** Engineered full TEA-aligned College, Career, and Military Readiness accountability logic in SQL: bucket assignments, IBC tier classification, and weighted calculations. Powers campus and district Power BI dashboards aligned to A–F accountability requirements.
- **SDR Sorter:** Built a Python/Tkinter desktop application to automate processing, validation, categorization, and routing of STAAR, TELPAS, and EOC assessment files. Replaced a fully manual workflow, reducing processing time and eliminating mis-routing errors.
- **PeopleSoft Data Warehouse:** Designed and implemented ETL packages importing 79 structured extracts from two PeopleSoft databases into a SQL Server data warehouse. Developed SSRS and SharePoint-integrated reporting on top of the warehouse for institutional compliance reporting.
- **Campus Snapshot Dashboard:** Designed a single-page Power BI dashboard combining multi-year accountability ratings, enrollment counts, grade distribution, and student group indicators. Gave campus leaders one place to view accountability context and demographic data for data-informed conversations.

- **Graduation Early Warning System:** Built an interactive Power BI dashboard with cohort counts, credit tracking, student group breakdowns, and drilldown detail to individual students. Turned static graduation reports into an operational monitoring tool supporting intervention planning.
- **Power BI Phone Directory:** Automated export of Mitel Connect Director phone data via Power Automate, stored via Power Apps, and surfaced in a mobile-friendly Power BI report embedded in Microsoft Teams — with multi-format print/download options.

EDUCATION

M.S. Computer Science · University of Texas Permian Basin *GPA 3.8*
Thesis: *Augmented Reality Industrial Training Mobile Application Developed with Unity*

B.S. Computer Science · University of Texas Permian Basin *GPA 3.5*