

Neysha Pagán Vargas

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Professional Summary

Strategic and solutions-oriented Data Architect and Engineer with over 13+ years of experience designing and implementing enterprise-grade data solutions, cloud migrations, and advanced analytics frameworks. Expertise in architecting scalable ecosystems, optimizing database performance, and driving business intelligence (BI) initiatives to support strategic decision-making. Proficient in Azure, Databricks, SQL Server, Azure Data Factory, and modern data platforms, with a strong focus on AI-driven automation, data governance, and compliance. Fluent in translating complex data needs into actionable insights across both technical and business audiences. Currently pursuing an M.S. in Applied Data Science (Syracuse University, expected Fall 2025), leading AI projects in NLP and deep learning to deliver predictive and intelligent data solutions. Adept at collaborating with cross-functional teams to align data strategies with organizational goals, delivering measurable business impact.

Key Skills: Data Strategy, Data Architecture, Cloud Data Platforms (Azure, AWS), Data Engineering, BI & Analytics (Power BI, DAX), Data Modeling, AI/ML (NLP, Deep Learning), Database Optimization, Data Governance, CI/CD, Automation

Core Competencies

- **Data Strategy & Governance:** Designed enterprise data architectures, governance frameworks, and RPO/RTO strategies for compliance and scalability.
- **Data Engineering:** Azure Data Factory, PySpark, SQL, Delta Lake, ETL/ELT pipelines.
- **Cloud & DevOps:** Azure, AWS, CI/CD, GitHub, Infrastructure as Code (IaC).
- **BI & Analytics:** Power BI, Tableau, DAX, SSRS, dimensional modeling, KPI development.
- **Databases:** SQL Server, Azure SQL, Oracle, PostgreSQL, Cassandra, MongoDB.
- **AI & Machine Learning:** NLP, deep learning, predictive modeling, conversational AI.
- **Tools & Scripting:** Python, PowerShell, T-SQL, Bash, R, JSON.
- **Certifications:** Azure Database Administrator Associate, Azure Fundamentals, SAFe 5.0 Agilist, Profisee MDM Architect & Admin, IBM Big Data Technologies, Microsoft AI & Data Science.

Professional Experience

- **Universal North America – Sarasota, FL | Nov 2024 – Present**
 - Designed and executed a unified data strategy and governance framework supporting compliance, operational visibility, and security.

- Architected high availability SQL Server clusters across multiple datacenters using Always On Availability Groups.
- Conducted full assessments of legacy SQL Server 2012 environments, identifying technical debt, performance bottlenecks, and modernization opportunities.
- Planned and led Azure migration strategy, including risk analysis, dependency mapping, and evaluation of Azure Hybrid Benefit, IaaS, and PaaS models.
- Automated health checks, index monitoring, and OS audits using advanced PowerShell and T-SQL scripting.
- Evaluated and optimized configuration settings (MAXDOP, memory, tempdb, file growth policies) to align with best practices.
- Delivered performance tuning and index optimization plans, including removal of unused and high-maintenance indexes.
- Prepared executive-level documentation for RPO/RTO targets, replication strategies, and operational governance frameworks.
- Designed and built an enterprise-grade Audit Data Warehouse, consolidating metadata and operational metrics across servers for compliance, capacity planning, and trend analysis.
- **Deloitte – FL / Remote | Oct 2022 – May 2025**
 - Lead Database Engineer in the Data Ingestion Team for a global enterprise data lakehouse built in Azure using Databricks and Delta Lake.
 - Designed and implemented the Medallion Architecture (Bronze/Silver/Gold) for structured and unstructured data ingestion.
 - Developed robust ETL pipelines using Azure Data Factory (ADF), Databricks, and PySpark, supporting large-scale ingestion and transformation.
 - Built and orchestrated scalable ETL pipelines using Azure Data Factory (ADF) and PySpark, including support for Slowly Changing Dimensions Type 2 (SCD Type 2) for historical data tracking.
 - Performed SQL Server architecture assessments and implemented performance tuning strategies for enterprise environments.
 - Created schema validation and data quality rules to ensure reliable ingestion into Delta tables and EDW structures.
 - Collaborated with DataOps teams to monitor and optimize data warehouse operations and pipeline reliability.
 - Produced technical documentation and participated in governance reviews to align with enterprise cloud architecture standards.
- **GEE0 – Remote | Oct 2022 – Jul 2023**
 - Migrated MariaDB to SQL Server and Azure SQL
 - Designed a reporting database and implemented RBAC and data normalization
 - Enabled analytics with Power BI and ensured system scalability
- **Neudesic – NY / Remote | Mar 2022 – Oct 2022**

- Delivered enterprise Power BI solutions by designing the semantic layer (tabular models, data marts) and developing advanced DAX measures for KPIs, time intelligence, and scenario analysis.
- Optimized Azure Synapse views and pipelines to support dimensional modeling and BI performance, contributing to MDM initiatives through dimension conformance and business rule alignment.
- Mentored junior developers and collaborated with stakeholders to translate reporting needs into scalable, governed BI solutions aligned with enterprise data strategy.
- **Dude Solutions – NC | Aug 2021 – Mar 2022**
 - Maintained hybrid database environments, led performance improvements
 - Participated in cloud migration to AWS and Snowflake
 - Implemented data masking and obfuscation routines to protect sensitive data in lower environments, enabling compliant test data provisioning across dev and QA systems.
- **Deloitte Services LP – FL | Jan 2019 – Aug 2021**
 - Monitored and optimized performance across Azure SQL Databases and SQL Server 2017 VMs in multi-environment pipelines (Prod and Non-Prod environments), resolving replication issues and performance bottlenecks.
 - Developed PowerShell and T-SQL scripts to automate user access tracking, performance monitoring, and index analysis across geo-distributed environments.
 - Implemented Azure Runbooks to automate index maintenance and statistics updates, enhancing database performance and reducing manual intervention.
 - Created dashboards to visualize key database metrics, including DTU, CPU, I/O, wait types, and top queries, supporting executive visibility and compliance.
 - Standardized security by integrating Active Directory authentication and automating least-privilege user provisioning via infrastructure pipelines.
 - Provided workshops and training to DevOps and DBA teams on Azure SQL performance insights, Managed Instance differences, and access governance.
 - Supported CI/CD integration, Infrastructure as Code adoption, and consolidation strategies to streamline database management and automation.

Additional Experience

DXC Technology, Molina Healthcare, Eastern Consulting Group, Puerto Rico Highway & Transportation Authority

AI Experience & Initiatives

AI is a growing focus in my professional development. Through my Master's in Applied Data Science (expected Fall 2025), I'm gaining hands-on experience with Natural Language Processing (NLP) and Deep Learning. I'm currently leading two academic projects: a conversational AI chatbot for customer service automation and a deep learning image

classifier for an e-commerce platform. To me, AI represents the future of data, enabling intelligent automation, data enrichment, and predictive decision-making.

Languages

- Bilingual: English & Spanish

Education

- M.S. Applied Data Science, Syracuse University, NY
Expected September 2025 | GPA: 3.99
- B.S. Computer Information Systems, University of Puerto Rico at Mayagüez

GitHub Projects

Explore more of my work, code samples, and in-progress research on AI, data engineering, and automation via my GitHub repository:

GitHub: <https://github.com/neypagan>