DDC DINÉ DEVELOPMENT CORPORATION

SOLUTION ACCELERATOR

Synthetic Data Engine

Empowering AI/ML and application development with privacy-safe, synthetic data

Overview

DDC's Synthetic Data Engine (SDE) enables organizations to accelerate research and AI/ML development by creating statistically accurate synthetic data that protects personally identifiable information (PII) and protected health information (PHI). This technology empowers organizations to share data securely across departments, with external partners, and even in public environments while maintaining data utility and privacy. At the center of SDE is a sophisticated suite of data transformation capabilities that form the foundation for high-quality synthetic data generation. The platform serves as both a technical solution for specific data challenges and a strategic asset that expands possibilities within organizational data resources while maintaining appropriate privacy and security controls.

Our Approach

SDE is built atop hardened, supported open source technologies without software vendor and system integrator lock-in. The platform leverages cutting-edge generative AI models combined with differential privacy techniques to create synthetic datasets that maintain the statistical characteristics and complex relationships of original data.

Organizations receive not only synthetic data, but also comprehensive modeling frameworks, detailed quality assessment reports, robust integration interfaces, and thorough compliance documentation. These deliverables collectively enable data teams to pursue advanced analytics initiatives, develop machine learning models, and conduct thorough software testing without exposing sensitive information.

Features

- **Advanced GenAI Models**
  Powerful GenAI models generating ultra-realistic synthetic data

- **Unlimited Data Generation**
  AI/ML development transformation from limited data into massive datasets

- **Automated Relationship Discovery**
  Complex entity relationship preservation in relational databases

- **Configurable Privacy Controls**
  Configuration-driven customization with privacy parameters

- **Multi-format Data Support**
  Multi-modal synthesis supporting a variety of data formats

Key Benefits

- **Advanced Pattern Recognition**
- **Accelerated Development and Testing**
- **Unlimited Data Generation**
- **Regulatory Compliance**
- **Cost Optimization**

Heritage-Inspired Accountability. Mission-Driven Impact.

As a wholly owned instrumentality of the Navajo Nation, DDC operates with a purpose beyond profit. Unlike traditional firms beholden to Wall Street or equity partners, our commitment is to the sustainable prosperity of the Navajo Nation and its People. Our Heritage-Inspired Accountability Model allows us to take a different approach—one that prioritizes long-term value, trust, and innovation.

Through our Solution Accelerator Model, we bring proven capabilities that empower delivery teams and accelerate digital transformation for our customers. By investing in open, scalable solutions and fostering true partnership, we don't merely deliver services —we build lasting relationships grounded in trust, integrity, and mission success.

Corporate Snapshot

- Navajo Nation tribally owned family of companies
- SBA certified 8(a) and Small Disadv. Businesses
- 700+ employees
- 130+ CONUS and OCONUS operating locations
- Federal, state, and tribal government markets
- 20-year history of proven performance

Innovation in Acquisition

- ☑ **Non-protestable awards**
- ☑ **Streamlined procurement process**
- ☑ **Increased contract capacity**
- ☑ **SDB contracting credit**
- ☑ **Advanced mission priorities**

Customer Success Story

Our customer faced challenges to develop machine learning models and test applications due to the sensitivity of patient data and regulatory constraints. After implementing SDE with GenAI capabilities, the customer created fully synthetic relational test databases that maintained referential integrity across its complex data model while preserving key statistical properties. DDC significantly accelerated development cycles through immediate data availability, bypassing lengthy approval processes. The automated synthetic data generation process reduced the time required to prepare data for projects from weeks to hours, enabling faster project initiation and more agile development cycles. The organization realized operational cost savings through reduced manual data preparation, streamlined compliance processes, and efficient development and testing workflows.

Contact Us

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