

PROSPECT 33

# Global Data Lab

# GDL

# Overview

Embark on a transformative journey with our Global Data Lab, designed to revolutionize the way AI solutions are built and implemented for Capital Markets. Our Lab ensures a seamless and effective integration of cutting-edge technologies into your business.



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# AI Powered Process Excellence for Wholesale Capital Markets

We deliver transformation in Wholesale Capital Markets combining AI & Machine Learning with Business Process Excellence.

**Key Benefits:**

- Performance: 3-5x improvement in time & cost efficiency
- Risk Reduction: Enhanced decision-making and compliance
- Resilience: Less key-man dependency and agile operations
- Measurability: Data-driven insights for continuous improvement
- Expertise: Dedicated to Wholesale Capital Markets sector

**We help our clients:**

- Rrealize revenue opportunities
- Optimize Business Process
- Improve Risk Management



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# Explore. Partner. Build.

**Exploration Phase:**

Our unique exploratory approach focuses on identifying the most promising opportunities and developing the next generation of AI solutions tailored to the dynamic needs of Capital Markets.

**Joint Partnership:**

A powerful collaboration between P33 data scientists and your in-house Subject Matter Experts (SMEs) allows a synergistic partnership that brings a deep understanding of your business challenges and ensure the development of solutions that address your specific requirements.

**AI Project Lifecycle:**

P33's proprietary approach to the AI project lifecycle combines our traditional transformation expertise with a modern approach to AI model development. This comprehensive strategy ensures a smooth and efficient transition from ideation to implementation, resulting in a lasting impact on your organization's performance.







# MDaaS™

## Model Development as a Service

MDaaS™ is a comprehensive solution designed to facilitate the seamless integration of advanced AI capabilities into your business. It covers the entire lifecycle of AI model development, ensuring a tailored and efficient approach to meet your unique needs.

- **Product Vision:** Establishing a clear direction for your AI project.
- **Analysis & Requirements Definition:** Identifying specific needs and objectives.
- **Proof of Concept (PoC) Phase:** Exploring and validating initial ideas.
- **Solution Refinement:** Enhancing and fine-tuning the AI solution.
- **Model Development:** Utilizing our DaSMoDe™ framework for optimal results.
- **Project Governance:** Ensuring compliance and oversight throughout the project.
- **Solution Deployment & Productionalization:** Seamlessly integrating the AI solution into your operations.
- **Model Validation & Monitoring:** Continuously evaluating and improving the AI model's performance.

# Methodology & Project Portfolio

Through the use of our advanced Global Data Lab (GDL) and proprietary DaSMoDe™ methodology, we have consistently delivered high-performance, tailored solutions, driving AI/ML solutions to reduce risk, optimize business process and increase revenues.



A vertical photograph of the CN Tower in Toronto at night, illuminated with red and white lights. The tower is the central focus, with the city skyline and the Rogers Centre stadium visible in the background. The sky is a deep blue, and the water in the foreground reflects the lights.

# DaSMoDe™

## Data Science Model Development Methodology

DaSMoDe™ is our proprietary methodology that combines the best of scientific experimentation and agile software development, ensuring a continuous flow for data model creation. This unique approach allows your organization to stay agile and ahead of the competition.

- » **Rapid Model Testing & Elimination**  
Quickly identify and discard underperforming models, saving time and resources.
- » **Comprehensive Model Validation**  
Assess the most promising models using various validation methods, train/test splits, and hyperparameter tuning.
- » **Experimentation & Tuning**  
Continuously refine and optimize models for peak performance and reliability.



# Project Portfolio

Through the use of our advanced Global Data Lab (GDL) and proprietary DaSMoDe™ methodology, we have consistently delivered high-performance, tailored solutions, driving AI/ML solutions to reduce risk, optimize business process and increase revenues.

## Credit Risk Early Warning Sentiment Analysis Tool

- Partnered with a leading US bank
- Developed an AI-driven Sentiment Analysis tool for sell-side capital markets risk function
- Enabled portfolio managers to monitor negative news sentiment and risk exposure
- Streamlined portfolio credit risk management with Early Warning Indicators (EWI)

## Combating Money Laundering and Petroleum Smuggling

- Utilized graph databases and algorithms to analyze connections in the Middle East
- Identified potential links between individuals, companies, and illicit activities
- Demonstrated the potential of graph databases in detecting and combating financial crimes in complex environments

## Transaction Monitoring & Client Risk Scoring

- Reduced false positives and negatives for more focused investigations
- Utilized graph algorithms to enhance accuracy of the gradient boosting model
- Expanded functionality by incorporating new crime dimensions from FATF reports



## People Analytics for Capacity Planning and Employee Retention

- Analyzed data from a platform monitoring workforce activity patterns
- Trained models to predict utilization of users and teams, and voluntary attrition risk
- Utilized ~1 million entries from 9000 employees across 27 Financial Services Institutions

## Data Quality: Missing Value Imputation

- Partnered with a major US trading firm
- Developed creative, explainable supervised learning models
- Enabled organizations to utilize datasets previously incompatible with ML due to missing values

## Portfolio Risk Management

- Prioritized trade investigations using outlier classification
- Utilized supervised learning methods for explainable output

## ML-Based Investment Regime Identification & Portfolio Optimization

- Tailored investment strategies, risk management, performance attribution, and macro-driven strategies
- Utilized clustering techniques and ML models to predict investment returns and optimize portfolios

## GPT/LLM for Knowledge Base Natural Language Querying

- Leveraged ChatGPT for natural language interrogation of large data volumes
- Enabled unprecedented insight into business data without training a model on specific data



**We offer a comprehensive suite of AI/ML solutions tailored to the unique needs of the Wholesale Capital Markets industry. By leveraging our advanced Global Data Lab (GDL), our proprietary DaSMoDe™ methodology, and our extensive use-case history, we have consistently demonstrated our ability to deliver high-impact, scalable, and innovative solutions.**

Our Model Development as a Service (MDaaS™) approach ensures seamless collaboration with our clients, as we build custom AI/ML models on their behalf, either in their environment or within our state-of-the-art GDL. This flexibility guarantees an efficient and effective AI/ML model development process, catered to each client's specific requirements.

- Proven track record in delivering successful AI/ML solutions
- State-of-the-art Global Data Lab (GDL) and DaSMoDe™ methodology
- Extensive use-case history showcasing our expertise
- Flexible MDaaS™ approach tailored to client needs



## » Deep Domain Experience

- Risk & Compliance
- Operations
- Finance
- Front Office
- Human Resources

## » AI/ML Expertise

- NLP
- Large Language Models
- Deep Learning
- Reinforcement Learning from Human Feedback
- Tree-based Supervised Learning Models

## » Proven Track Record

- 15+ years in Wholesale Capital Markets
- 35+ data scientists
- 100 data scientists by EOY '23



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