

The background of the slide is a dense field of three-dimensional numbers in various shades of blue. The numbers are of different sizes and are scattered across the frame, creating a sense of depth and movement. Some numbers are in the foreground, appearing larger and more detailed, while others are in the background, appearing smaller and more blurred. The lighting is soft, highlighting the edges of the numbers and giving them a realistic, blocky appearance.

## Credit One – Customer Credit Worthiness

Richard Valades

# Business Question

- Problem: Increased default rates on loans from Credit One clients is having a negative impact on the company's reputation.
- We need a new method of determining credit worthiness.
- At minimum, we need a way to determine the probability of one of our client's customers defaulting on a loan.



# Analysis Plan

- The goal of this analysis will be to determine if one factor or multiple factors in a customer's data profile is predictive of whether that customer is likely to default.
- We will evaluate parameters such as customer age, billing and payment history, education level, marital status, etc. as possible predictors.
- Machine Learning models will be created and evaluated for predictive accuracy.
- Project plan will be to report initial findings and provide insights to management as they become available.

# Data Collection

- Data will be sourced from external customer database.
- Data Science team will leverage data cleansing techniques using Python to prepare the data for analysis and modeling.

# Insights

- Initial data exploration will be to determine if there is any meaningful pattern that can be derived from a cursory review of the data.
- Further statistical analysis will be performed and any findings that are relevant to the business problem will be provided to management.
- Reliability of machine learning models will be evaluated for suitability to support our business case.



# Recommendations

- Upon completion of the Data Science project, the team will provide a formal recommendation to management with the following:
  - Basis for recommendation if definitive results from machine learning models can be achieved
  - Plan for implementation of new business process to determine credit risk

# Data Science Process

